The Spruce Grove General Municipal Plan

EDMONTON METROPOLITAN REGIONAL PLANNING COMMISSION

TOWN OF SPRUCE GROVE

BY-LAW NO. 714-84

GENERAL MUNICIPAL PLAN BY-LAW

Being a by-law to adopt a General Municipal Plan for the Town of Spruce Grove in the Province of Alberta.

WHEREAS under the authority of Section 61, 62, and 63 of the Planning Act, Chapter P-9 of the Revised Statutes of Alberta 1980, and amendments thereto, a municipality shall prepare and adopt a general municipal plan describing the manner and sequence in which future development and redevelopment of within the municipality may be carried out, having regard to considerations of orderliness, economy and convenience;

AND WHEREAS the Council of the Town of Spruce Grove has caused to be prepared by their Administration and the Edmonton Metropolitan Regional Planning Commission, a general municipal plan on the basis of surveys and studies as follows: Future Land Use, Statutory Plan Areas, Central Area Redevelopment Plan, Existing and Proposed Waterworks System, Existing and Proposed Sanitary Sewerage Systems, Existing and Proposed Roadway Systems, Existing and Proposed Storm Drainage Systems, and other such matters that the council considered necessary.

NOW THEREFORE, the Municipal Council of the Town of Spruce Grove in its open meeting assembled and pursuant to the provisions of the Planning Act, Chapter P-9, RSA 1980, as amended, hereby ENACTS AS FOLLOWS:

1. This By-law may be cited as "The Spruce Grove General Municipal Plan By-law No. 714-84".

2. The Spruce Grove General Municipal Plan attached hereto as Schedule "A" to this by-law, is hereby adopted.

3. The Spruce Grove General Municipal Plan Report shall become a guide to preparation of Area Structure Plans, detailed subdivision plans, and development, and shall be an information document for the purposes of interpreting and clarifying this by-law.

4. This by-law shall take effect on the date of its final reading, and shall supercede By-law No. 494.

First Reading carried 26 March 1984.

Second Reading carried 9 July 1984.

Third Reading carried 9 July 1984.

MAYOR

MUNICIPAL SECRETARY

SCHEDULE 'A'

THE TOWN OF SPRUCE GROVE GENERAL MUNICIPAL PLAN

BYLAW NUMBER 714-84

The following goals and objectives together form a general statement of the Town's desired growth.

Municipal Growth and Urban Form

Urban Form

Goals: (1) To retain the distinctive individuality of Spruce Grove.

(2) To develop a sense of neighbourhood identity.

(3) To maintain a rate of growth which is sensitive to economic, financial, environmental, and social concerns of the Town.

(4) To encourage an efficient and economical urban development pattern which will meet the needs of the Town's existing and prospective residents.

Objectives:

(1) To specify a future level of population and rate of growth which the Town will seek to accommodate and which will be consistent with the Town's likely role in the Edmonton Region.

(2) To specify a future land use pattern which will accommodate future growth, compatibly arrange various land uses and permit efficient transportation and utility servicing.

Utilities and Transportation Systems

Goals: (1) To provide for a variety of transportation modes to move goods and people within and through the Town.

(2) To protect the character of local residential streets.

Objectives:

(1) To develop an integrated, safe, attractive and efficient transportation system for the movement of people and goods.

(2) To minimize the adverse effects of transportation routes upon adjacent land uses.

(3) To encourage the use of a variety of travel modes.

Environmental Conservation

Goals: (1) To protect the natural resources contained within the Town of Spruce Grove for the long term benefit of its residents.

(2) To protect environmentally sensitive areas.

(3) To minimize the magnitude and frequency of flooding.

(4) To protect the quality of the air for the long term benefit of the Town's residents.

Objectives:

(1) To assess the possible impacts of proposed major developments on the natural environment.

(2) To endeavour to retain significant natural landscape features in their present state.

(3) To ensure the protection of unique or threatened species of flora and fauna.

Social Development

Goal: To encourage a socially and physically healthy environment for the varying needs of the Town's residents.

Objectives:

(1) To encourage the development of individual and community self-determination; to increase initiative; and to promote the cultural diversity of the Town by providing forum(s) for community participation in local decision-making.

(2) To minimize the negative social impacts of major development proposals.

(3) To provide opportunities for Spruce Grove residents to pursue educational, recreational and cultural activities.

(4) To provide, in cooperation with the appropriate agencies, for the continued mental and physical health of the residents of Spruce Grove.

(5) To encourage community identity by supporting the establishment of areas for social interaction such as parks, community clubs and organizations as well as other secondary (non-family) support systems.

Visual Landscape

Goals: (1) To develop a high standard of architectural and landscape design in new development or redevelopment in Spruce Grove.

(2) To improve the appearance of existing development in the Town including the provision of an aesthetic visual landscape along Highway 16.

(3) To protect natural vistas.

Objectives:

(1) To encourage building and landscape design which is consistent with the surrounding neighbourhood's character and landscape.

(2) To promote the attractiveness of residential neighbourhoods and new developments.

(3) To control and regulate signs, fences, equipment housings, lighting and other such elements.

Parks and Recreation

Goals: (1) To conserve and protect significant aspects of the environment within the Town for the enjoyment of present and future generations.

(2) To enhance the quality of life for all citizens of Spruce Grove by ensuring the provision of physical, social, cultural and leisure education opportunities.

(3) To provide the broadest possible range of leisure areas and facilities which are accessible to all residents.

(4) To provide the coordination to ensure the development of leisure services which contribute to the growth of the individual and the community.

Objectives:

(1) To protect the environment and cooperate with other agencies to increase the public's appreciation of the value of natural open space.

(2) To develop recreational areas on the basis of established environmental capabilities which are consistent with sound environmental planning.

(3) To develop a linked open space system that incorporates conservation areas, woodlands, valleylands, and neighbourhoods and major parks.

(4) To locate park and recreation facilities in close proximity to the expected user population.

(5) To provide sufficient areas for active and passive recreation pursuits.

(6) To provide recreation and cultural programs which meet the needs of the Town's existing and prospective residents.

(7) To provide adequate facilities for the accommodation of various recreation and cultural programs.

Public and Semi-Public Land Uses

Goal: To ensure the efficient and economical provision of public facilities to meet the needs of the residents of the Town.

Objectives:

(1) To ensure that all necessary public and semi-public uses are developed in appropriate locations close to the population serviced.

(2) To provide sites of suitable size for public facilities.

(3) To encourage the joint use of school and town facilities.

Residential Development

Residential Land Demand

Goals: (1) To encourage a full range of housing which is affordable to various income groups within the municipality.

(2) To ensure that all residents of the Town can live in a dwelling which is situated in a liveable urban environment.

Area Structure Plans

Objectives:

(1) To ensure the residential expansion takes place in an efficient and economical manner.

(2) To ensure that residential development are compatible with natural systems by encouraging the preparation of an environmental impact assessment before the proposed developments are approved.

(3) To endeavour to provide a mix of housing which meets community life styles, stages in the life cycle, income levels, and aspirations.

Subdivision

(1) To ensure that a common standard of municipal residential services will be available to the residents of all types of housing.

(2) To promote energy conserving and land efficient residential development.

Development

(1) To promote high standards of safety, convenience, privacy and amenity in all residential areas.

(2) To encourage the necessary housing for persons on modest or fixed incomes in cooperation with governmental agencies, non-profit organizations and the private sector.

Commercial Development

Goals: To strengthen the overall commercial function of the Town and to provide for a variety of commercial activities to satisfy the needs of an expanding community.

Objectives:

(1) To promote safe, efficient and attractive commercial areas.

(2) To encourage the continuing development of a full range of commercial activities in the Town.

Industrial Development

Objectives:

(1) To encourage industrial development in order to increase community employment opportunities, minimize home to work travel, and improve the Town's tax base.

(2) To ensure the creation of high quality industrial areas which are compatible with the non-industrial areas of the Town.

Redevelopment

Goals: (1) To preserve and maintain a sense of community or neighbourhood in older areas of Town.

(2) To encourage and maintain a high quality built environment in older areas of the Town.

Objectives:

(1) To preserve important and historical elements of the community.

(2) To rehabilitate whenever possible and redevelop only when necessary, the existing housing stock in residentially zoned areas.

(3) To maintain and upgrade the present housing stock through the adoption and enforcement of minimum standards and participation in public sector housing programs at the various governmental levels.

Financial Development

Goals: To ensure that the Town's financial position is protected and its residents are not unduly taxed in the provision of municipal services.

Objectives:

(1) To monitor the financial position of the Town and adjust the rate, type, and conditions of growth accordingly.

(2) To continue to assess all proposed developments with respect to their financial effects on the existing residents and the Town as a corporation prior to approval being granted.

ACKNOWLEDGEMENTS

The Town of Spruce Grove General Municipal Plan program was initiated by an agreement between the (then) Edmonton Regional Planning Commission and the Town of Spruce Grove and completed in 1979.

Background studies and the Town of Spruce Grove General Plan Bylaw were prepared by staff of the (then) Edmonton Regional Planning Commission in consultation with the Town of Spruce Grove Council and its appointed General Plan Review Committee.

Town of Spruce Grove Municipal Council (1979)

G. Cuff	Mayor
J. Acker	Councillor
G. King	Councillor
D. Park	Councillor
G. Staruiala	Councillor
J. Steiger	Councillor
L. Walker	Councillor

General Plan Review Committee (1979)

G. McClenaghan	Chairman and Board of Education
J. Bendle	Member at Large
A. Borrebach	Chamber of Commerce
B. Hunt	Recreation Board
T. McGibbon	Development Control Officer
D. Park	Councillor
J. Ratcliff	Member at Large
H. Scheewe	Member at Large
J. Steiger	Councillor
B. Vasseur	Separate School Board

Town of Spruce Grove Municipal Council (1984)

G. Cuff	Mayor
J. Acker	Councillor
C. Heil	Councillor
D. Hinch	Councillor
J. Steiger	Councillor
L. Walker	Councillor
W. Steinburg	Councillor

Planning and Development Committee (1984)

J. Acker	Chairman and Councillor
D. Hinch	Councillor
P. Vana	Planning and Development Officer
H. Christy	Municipal Planner (E.M.R.P.C.)

Edmonton Metropolitan Regional Planning Commission

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PART 1

PURPOSE

PART 1 PURPOSE OF THE GENERAL MUNICIPAL PLAN

The Town of Spruce Grove General Municipal Plan is a broad policy document to guide both public and private planning and development.

The legislated authority for the preparation of the General Municipal Plan is contained in the Planning Act, 1980.

The General Municipal Plan describes the land uses proposed for the municipality and the manner of, and the sequence proposed for, future development of the Town. In addition, the General Municipal Plan designates areas of the municipality suitable for area structure plans or area redevelopment plans.

PART 2

RESEARCH PROGRAM

PART 2 THE GENERAL MUNICIPAL PLAN RESEARCH PROGRAM

The General Municipal Plan research program was initiated in early August 1978.

The research program has resulted in a comprehensive analysis of the Town, including the following:

(1) a survey of Town residents to determine their attitudes respecting the existing and future development of Spruce Grove;

(2) an assessment of the Town's population growth and economic development prospects;

(3) an analysis of the adequacy of the existing transportation and utilities systems to accommodate growth;

(4) preparation of environmental, social, economic and urban development policies to assist the Town Council in achieving the stated goals and objectives;

(5) a proposed land use plan;

(6) an analysis of the present financial position of the Town and the possible direction and size of change in future expenditures on some municipal function;

(7) proposed methods of implementing the General Municipal Plan; and

(8) a system of monitoring land use decisions.

A total of ten background reports were prepared by the General Plan staff and reviewed, amended as necessary and adopted by the Town's General Plan Review Committee and Council as information for the preparation of the General Municipal Plan.

A public participation program was conducted concurrently with, and formed an integral part of, the General Municipal Plan research program.

The purposes of the public participation program were to provide the Town's residents with an opportunity to participate in the planning of their Town's future, and to provide the Council and the General Plan staff with an indication of the citizens' views.

A number of opportunities were provided for citizen participation. Following the adoption of the study design, Town Council established a General Plan Review Committee composed of a majority of citizen representatives, to assist them in supervising the preparation of the General Municipal Plan.

During the General Municipal Plan research program, the Town delivered to each household summaries of the data analysis and recommendations contained in the background reports. The background reports were also published and made available to all interested individuals.

A questionnaire was administered to approximately one-quarter of the Town's households in order to provide insight into the attitudes and opinions of the citizens with respect to the existing and future development of Spruce Grove. More than eighty percent of the households surveyed completed a questionnaire.

Following completion of the basic data collection and analysis, the Town hosted five neighbourhood meetings and a Town-wide meeting to further involve the residents in the planning of their community. The results of the community survey, neighbourhood meetings, and General Plan Review Committee deliberations were used to formulate goals and objectives respecting Town development.

The Town hosted an open house following tentative Council approval of the proposed land use plan, suggested Town development policies, and conceptual transportation and utilities systems. At the open house, citizens were provided with the opportunity to discuss their views with the members of Council, the General Plan Review Committee, and the General Plan staff in attendance at the meeting.

Throughout the General Plan research program individuals and groups were encouraged to submit their views to the General Plan Review Committee and/or Council for consideration prior to the preparation of the Draft General Municipal Plan.

Lastly, adoption of the Town of Spruce Grove General Municipal Plan Bylaw No. 494 followed the procedures specified by the Planning Act, 1980.

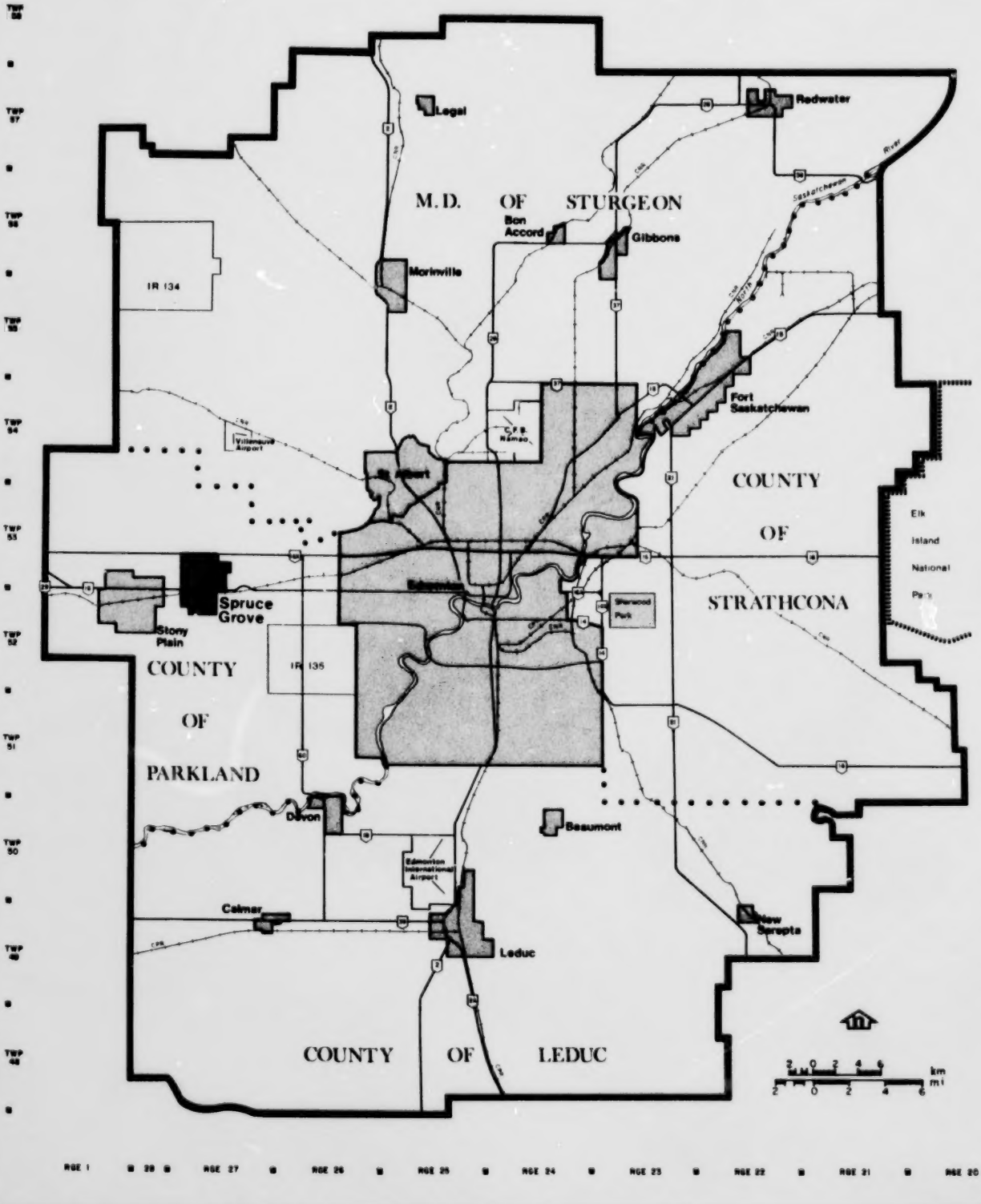
A General Municipal Plan should be reviewed every five years and updated or revised as necessary to remain current. Since adoption in 1979, Spruce Grove has grown by approximately 2,300 people and substantially increased its land area through annexation.

Because some sections of the General Municipal Plan needed attention, while others remained current, a repeat of the formal General Plan process conducted in 1979 was not deemed necessary. The review was largely conducted in-house with the aid of the affected municipal departments and committees of Council.

Adoption of these amendments to the Town of Spruce Grove General Municipal Plan Bylaw No. 714-84 followed the normal procedures specified by the Planning Act, 1980.

Town of Spruce Grove General Municipal Plan

Map 1
Regional Location



PART 3

GOALS, OBJECTIVES AND POLICIES

PART 3 GENERAL MUNICIPAL PLAN GOALS, OBJECTIVES AND POLICIES

3.1 MUNICIPAL GROWTH AND URBAN FORM

3.1.1 Preamble

Population Growth Trends

Table 1 indicates the population growth of Spruce Grove during the last 22 years. Population grew relatively slowly in the early 1960's. Between 1961 and 1966 the population increased 28.6 percent from 465 to 598, or 6.7 percent per annum. Growth rates accelerated during the late sixties averaging 16.3 percent per annum during the 1966 to 1971 period. During the 1971 to 1976 period, rates soared to 25.6 per annum, peaking during the 1972-1973 period where the annual growth rate was as high as 40 percent. Recently growth has fluctuated but generally declined averaging 9.9 percent per annum during the 1976 to 1981 period and 4.9 percent in the last year. Current (1983) population stands at 11,307.

TABLE 1

TOWN OF SPRUCE GROVE POPULATION TRENDS, 1961-1983

Year	Population	Absolute Change	Percentage Change	Average Per Annum (5 yr. period)
1961	465			
1966	598	133	28.6	5.72
1971	3,029	2,431	406.5	81.3
1976	6,907	3,878	128.02	25.6
1981	10,376	3,419	49.5	9.9
1982	10,783	458	4.4	
1983	11,307	522	4.9	

Annual Rates of Growth 1976-1983

1976	12.6
1977	3.3
1978	10.3
1979	6.8
1980	7.3
1981	13.7
1982	4.4
1983	4.9

Source: Census of Canada, 1961, 1966, 1971, 1976, and Edmonton Metropolitan Regional Planning Commission records.

This decline in population growth has been a reflection of general economic conditions in Alberta and the region. Future growth potential is anticipated to be dependent on the rate of economic recovery, the price of land in the metropolitan region, and the ability of municipalities, including Edmonton, to attract a share of in-migrating population.

Economic Development and the Rate of Growth

Prior to the adoption of the General Municipal Plan in 1979, Council adopted a policy of maintaining a 5 to 10 percent population growth rate per annum.

The intent of this effort to consciously manage growth rates was to allow physical and social infrastructures to keep pace with residential growth. The policy of balanced growth seeks to encourage self-sufficiency and enable Spruce Grove to develop its role as a satellite industrial centre within the metropolitan region.

Because a slower rate of growth is anticipated in the 1980's than was experienced in the 1970's, it appears that the 5 to 10 percent growth strategy is no longer appropriate. In fact, the average annual rate of growth since the General Municipal Plan was prepared in 1979 has been 8.0 percent. Projecting on the basis of present trends it is likely that the Town of Spruce Grove will experience growth rates averaging between 4 and 6 percent and that the population projection of between 20,000 and 28,000 in the 1979 General Municipal Plan should be revised to between 19,000 and 24,000 (refer to Table 2 for a list of Population Projections).

TABLE 2

TOWN OF SPRUCE GROVE POPULATION PROJECTIONS TO 1996 (revised)

	4% Per Annum	6% Per Annum
1983	11,307	11,307
1986	12,719	13,467
1991	15,474	18,022
1996	18,626	24,117

Urban Form

Development in Spruce Grove initially located in close proximity to Highway 16 and the Canadian National Railway which bisects the Town. Highway 16X, passing north of the Town boundary provides an additional linkage to Edmonton. The railway line and Highway 16 remain an integral part of the Town's activity patterns since all residential development in Spruce Grove has located north of this transportation corridor and all industrial development is concentrated to the south (see Map 2). Since 1979, the Town of Spruce Grove has annexed approximately 960 acres to the south for industrial use. The pattern of residential/industrial land use continues to form the basis for the future urban structure of the Town.

In addition, the Town has adopted an economic strategy which emphasizes redevelopment and improvement of the Original Town Site. A Central Area Redevelopment Plan was prepared and adopted in 1982 which emphasizes the central core as the primary commercial area of the Town. The Town is aware that prior to allowing major redevelopment or density increases, it will be necessary to upgrade the water supply line to provide for adequate services.

The Town of Spruce Grove has adopted the following GOALS respecting municipal growth and urban form.

(1) To retain the distinctive individuality of Spruce Grove.

(2) To develop a sense of neighbourhood identity.

(3) To maintain a rate of growth which is sensitive to economic, financial, environmental, and social concerns of the Town.

(4) To encourage an efficient and economical urban development pattern which will meet the needs of the Town's existing and prospective residents.

3.1.2 Objectives and Policies

OBJECTIVE: To specify a future level of population and rate of growth which the Town will seek to accommodate and which will be consistent with the Town's likely role in the Edmonton Region.

POLICIES:

POLICY 1 *The Town shall seek to accommodate a population increase of approximately 13,000 persons by the year 1996.*

Achievement of the above policy would result in a total 1996 population of approximately 24,000 people.

POLICY 2 *The Town shall seek to maintain an average annual growth rate of between 4 and 8 percent.*

It is recognized that the Town's short term rate of growth will vary because of market forces and the application of public and private sector policies beyond the control of the municipality. It is expected that the annual percentage rate of growth in the early years of this plan, when the Town is relatively small, will be higher than the average annual rate of growth averaged over the next twenty years. The Town's annual rate of growth may also vary with the Town's ability to provide for the social service, educational and recreational needs of the anticipated population.

POLICY 3 *The Town shall seek to maintain a twenty year supply of future residential, commercial, and industrial land.*

At no time should the supply of future residential, commercial, or industrial land fall below a ten year requirement.

POLICY 4 *The Town shall seek to annex sufficient land beyond the Town boundaries in order to ensure a twenty year supply of future residential and industrial land.*

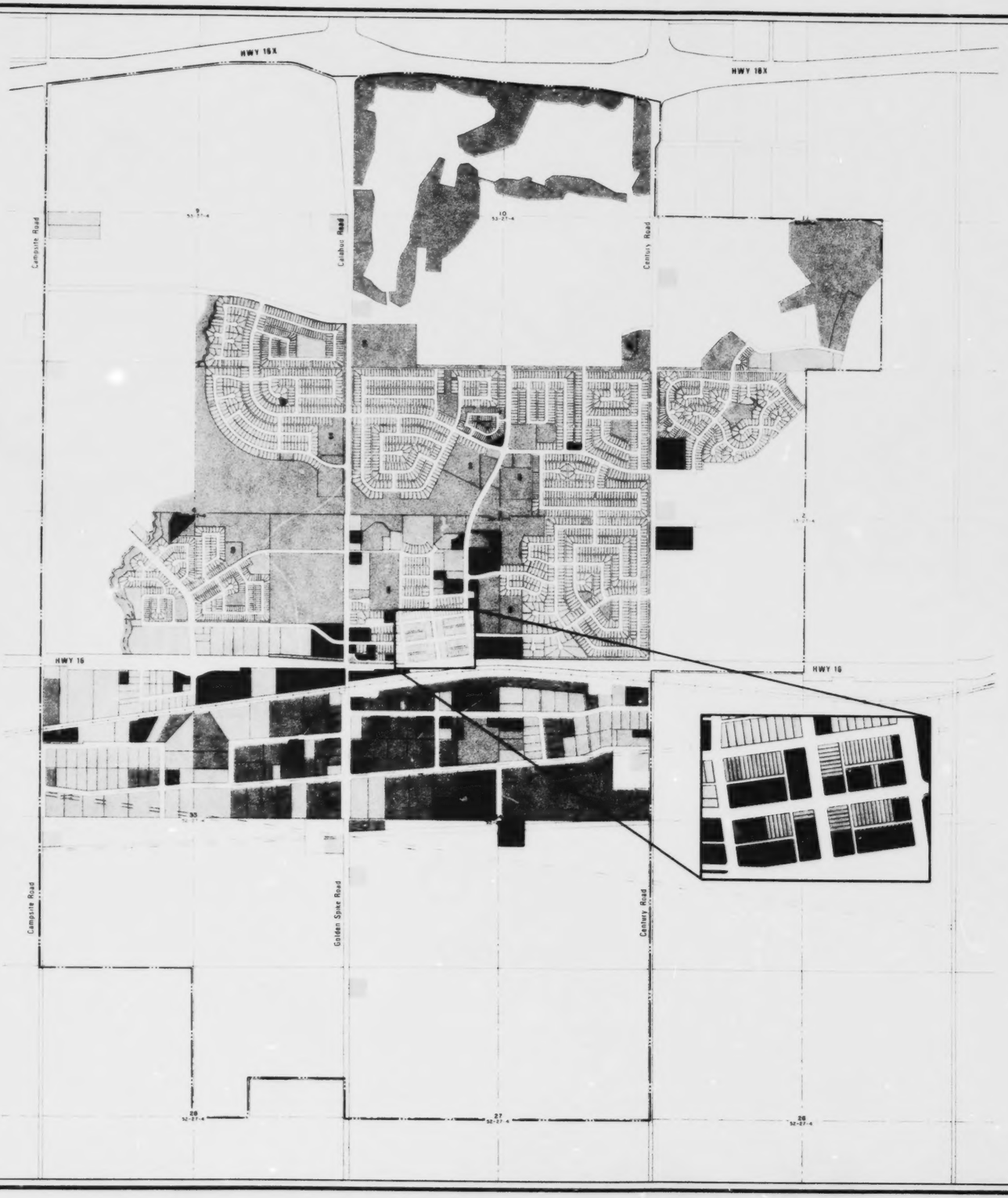
The Town will review its future land requirements in conjunction with each review of the General Municipal Plan. Review of the General Municipal Plan will occur at least once every five years.

The Town favours comprehensive annexation as opposed to frequent piecemeal annexation requests.

OBJECTIVE: To specify a future land use pattern which will accommodate future growth, compatibly arrange various land uses and permit efficient transportation and utility servicing.

POLICIES:

Policy 5 *The Town shall continue to require industrial development to be located south of Highway 16 and the Canadian National Railway mainline and residential development to be located north of Highway 16.*



Town of Spruce Grove General Municipal Plan

MAP 2
Existing Land Use

- Residential-Low Density
- Residential-Medium Density
- Commercial
- Recreational Open Space
- Utilities
- Institutional/Semi-Public
- Light Industrial
- Agricultural
- Vacant/Undeveloped
- S School
- C Place of Worship
- † Cemetary

July 1984

1:24,000

Edmonton Metropolitan Regional Planning Commission

Policy 6 *Area structure plans shall be prepared in accordance with procedures and information requirements as outlined by the Town in Policies 113 to 122.*

Policy 7 *Moderate and high density residential development may be permitted in proximity to, or with convenient access to a business district and its shopping, employment, schools, and recreation opportunities.*

3.2 UTILITIES AND TRANSPORTATION SYSTEMS

3.2.1 Preamble

A description of Spruce Grove's existing and proposed utilities and transportation systems has been provided. The report Town of Spruce Grove Utilities and Roadway Review more thoroughly discusses future utility and transportation requirements and should be consulted for more specific Town policy.

3.2.2 Waterworks

The Town of Spruce Grove's existing water supply and distribution system consists of the potable water supply from the Parkland Water Board, water storage, and pumping facilities located adjacent to the reservoir in Yellowhead Industrial Park (see Map 3).

(1) Water Supply

Potable water is currently purchased from the City of Edmonton and delivered by the Parkland Water Board to Spruce Grove, Stony Plain and certain land uses within the County of Parkland which are adjacent to the water transmission main. The Parkland Water Board was formed as an association between the County of Parkland and the Towns of Spruce Grove and Stony Plain.

Water delivery records provided by the Parkland Water Board for 1978 indicate the following:

PARKLAND WATERLINE - 1978 WATER DELIVERY

	Daily Per Capita Flows (imperial gallons)	
	Spruce Grove	Stony Plain
Average Annual Delivery	61.5	65.5
Peak Daily Delivery	144.8	115.6
5-Day Peak Delivery	109.8	108.6

On the basis of recent readings, the average daily consumption per capita is reported as 61.5 gallons, or an average daily flow of 448 igpm (imperial gallons per minute) for a population of 10,500 people. It is generally considered desirable that the water supply system should be able to deliver 2.0 times average daily demand, the balance being made up from storage with deliverability not dropping below 1.5 times the average daily demand. This represents demand requirements of 896 and 672 igpm, respectively.

If it is assumed that Spruce Grove's prorated share of the Parkland Water Board line's current stated capacity of 2,750 igpm is approximately 65 percent, then Spruce Grove can anticipate being able to draw 1,787 igpm. With the addition of two more pumps at the Winterburn Booster Station in Stage 1, the capacity can be increased to 6,670 igpm.

POPULATION CAPABILITY AT VARIOUS WATER SUPPLY FACTORS

Current Population	Desired Supply 2.0 x Avg. Daily Demand	Available Water Supply	Population at Desired Rate	Minimum Supply 1.5 Avg. Daily Demand	Population at Minimum Rate
10,500	896 igpm	1787 igpm	20,920	672 igpm	27,900

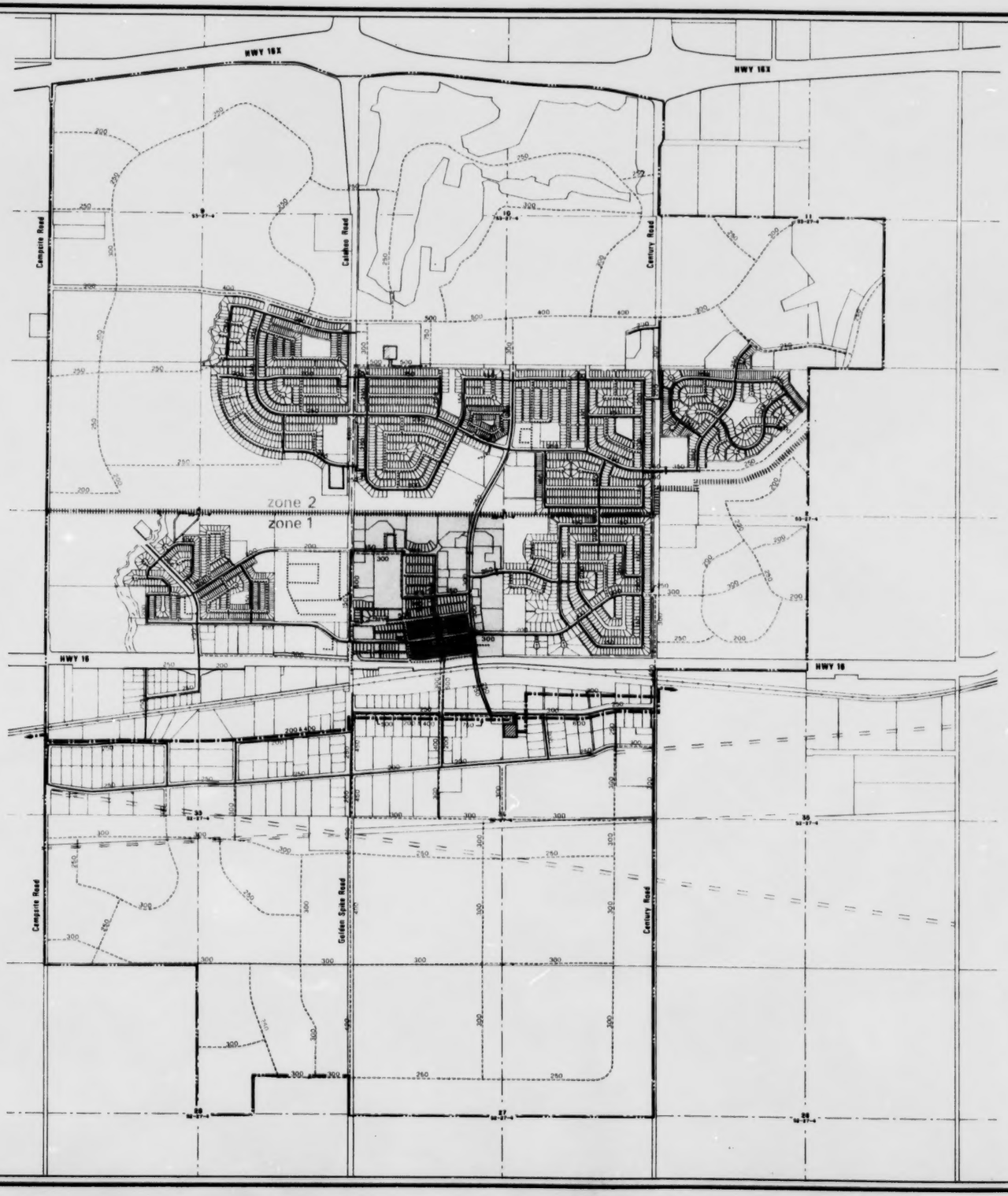
Under actual operating conditions the Parkland Water Board is limited insofar as water supply is reduced when City pressure at the City supply point falls below 35 psi (pounds per square inch). Under these circumstances, the water availability to Spruce Grove's prorated share of the water line's capacity is reduced, therefore, much greater reliance will have to be placed on the storage available.

(2) Storage

The Town currently has enclosed storage for 5 million imperial gallons located on a 3.7 acre reserve site (Lot R1, Plan 1034 TR) on the south side of South Avenue in the Yellowhead Industrial Park.

The most desirable water storage for a community such as Spruce Grove should consist of storage adequate to meet the fire flow for a specified fire duration as set out by the Insurer's Advisory Organization, plus a 5-day peak consumption. The Insurer's Advisory Organization recommended in August 1977 that a fire flow of between 3,000 and 3,500 igpm be considered for the industrial area within the Town. The existing fire pump is rated at 2,083 igpm.

The following table outlines the desirable storage capacity as indicated by the Insurer's Advisory Organization's recommendations plus 5-day peak consumption. The figures are based on a



Town of Spruce Grove General Municipal Plan

MAP 3
Waterworks System

EXISTING
- Reservoir
- Service Main
- Watermain*
- Water Supply Line

PROPOSED
- Reservoir
- Water Main
- Water Supply Line
- Zone Boundary
- Upgrade Water Works For Business District

* Mains over 150mm. in diameter are indicated — 150

150mm	5.9in.	350mm	13.8in.	550mm	21.7in.	750mm	29.5in.	950mm	37.4in.
200	7.9	400	15.7	600	23.6	800	31.5	1000	39.4
250	9.8	450	17.7	650	25.6	850	33.5	1050	41.3
300	11.8	500	19.7	700	27.5	900	35.4	1250	49.2

The proposed servicing systems and alignments are conceptual and may change prior to development of the affected areas.

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fire flow rate of 3,500 igpm for 3.7 hours up to a population of 15,000 persons and 5,000 igpm for 5 hours and 5-day peak storage for a range of populations.

WATER SUPPLY FOR FUTURE POPULATIONS

Population	Fire Storage (ig)	5-day Peak Supply (ig)	Desirable Storage (ig)
8,000	777,000	4,400,000	5,177,000
10,000	777,000	5,500,000	6,277,000
15,000	1,500,000	8,250,000	9,750,000
20,000	1,500,000	11,000,000	12,500,000
25,000	1,500,000	13,750,000	15,250,000

Based on these criteria there is an indicated deficit of 1,200,000 gallons of desirable storage for the current population.

Additional storage is proposed in the southwest corner of the S.W. 1/4, Section 10-53-27-4. It is also proposed to supply this new reservoir with a dedicated gravity supply line from the existing reservoir and at the same time to separate the distribution system into two pressure zones with the lower zone to be supplied by new pumping facilities from the new reservoir.

(3) Pumping Capacity to the Town Distribution System

The existing pumping facilities consist of two service pumps and one fire pump. The rated capacity of the new variable speed service pump at 1,770 RPM and 56.7 m (186 ft.) TDH is 63.1 L/s (833 igpm). The constant speed pump is capable of pumping 63.1 L/s (833 igpm) against a system head of 31.7 m (104 ft.). The rated capacity of the fire pump at 1,770 RPM and 38.4 m (126 ft.) TDH is 157.7 L/s (2,082 igpm). The fire pump is also considered as a stand-by unit and it is used as such in case of power failure or when one of the service pumps is under repair. the servicing capability of the two service pumps is a population of 22,000 people.

(4) Water Distribution

Water distribution systems are normally developed to provide for two major purposes. Firstly, potable water is provided to residential, commercial and industrial users. Secondly, the water distribution system provides the fire flows required for fire protection.

The recommended fire flow for various areas will depend on land use and building standards. The Insurer's Advisory Organization in its 1977 report on Spruce Grove indicated that the future expansion of the water supply in the industrial area should be designed on the basis of a required fire flow of 3,000 to 3,500 igpm.

The publication Water Supply for Public Fire Protection prepared by the Insurance Bureau of Canada indicates the general ranges of required fire flows:

TYPES OF DWELLING UNITS AND LAND USES	REQUIRED FIRE FLOW
(a) Single family dwellings, not exceeding 2 storeys and small two family dwellings with exposure distances of 10 feet or less	1,200 to 1,700 igpm
(b) Three storey frame apartments	3,000 igpm
(c) Contiguous buildings	2,000 igpm
(d) Commercial districts	3,000 to 5,000 igpm

Since fire flows are generally the controlling factor in the sizing of water mains, it is apparent that a detailed strategy for the provision of a water distribution system will be related to the determination of land uses and building standards to be employed on the sites.

The Town's current distribution system is supplied from the reservoir and pumphouses located on South Avenue. The industrial area is currently fed by a 10-inch watermain along the length of South Avenue throughout N 1/2 of Section 34-53-27-W4 and along Diamond Avenue through the N 1/2 of Section 33-52-27-W4.

The commercial and residential areas north of Highway 16 are fed by two 10-inch watermains located in a single ditch under the Canadian National Railway and Highway 16 and connected to the distribution network at King Street and First Avenue. A trunk watermain consisting of 12-inch and 10-inch watermains has been constructed northwards along the length of King Street to the north boundary of Section 3-53-27-W4. A 10-inch watermain has been extended eastwards along Brookwood Drive to Century Road and westwards along Woodhaven Drive and Millgrove Drive to provide service to these subdivisions.

A 10-inch watermain has also been constructed across Highway 16 and the Canadian National Railway right-of-way to connect the Westgrove development to the 10-inch watermain in the industrial area in the NW 1/2 of Section 33-52-27-W4 and thereby supplement the water supply in this new development area.

A report prepared by Associated Engineering Services in 1982 indicated that further feedmains are required to improve the supply to new developments in the western and eastern areas of the Town (ie. Westgrove and Grove Meadows). In addition, an upgrading of the system in the Original Townsite is necessary to meet the demand of new commercial development in that area. As described previously it is also proposed to construct a new reservoir in the northern half of the Town and separate the system into two pressure zones with the northern pressure zone being supplied by the new reservoir. Some growth north of the presently developed area can be accommodated, however, initial analysis would indicate that this growth would be limited to an approximate population of 2,500 people. Indications are that a 1,220 igpm fire flow demand in this area would, as population growth started to exceed this level, have a considerable impact on pressures in the most southerly residential developments.

3.2.3 Sanitary Sewers

The Town's sanitary sewer collection system consists of a series of underground pipes intercepting wastes from the various individual contributors and conveying these wastes to sanitary trunk sewers. Wastes are conveyed by the sanitary trunk sewer to an outfall sewer which flows by gravity to a sewage lagoon system (see Map 4). Sewage is treated within the lagoon system.

The area west of Century Road is serviced by a 21-inch outfall sewer. The sewer currently terminates at the south boundary of Section 15-53-37-W4 where it is fed by an 18-inch diameter sewer. This sewer in turn services Section 3-53-27-W4, the N 1/2 of Section 34-52-27-W4 and the N 1/4 of Section 10-53-27-W4 and a 15-inch diameter sewer connects to this outfall in the NW 1/4 of Section 10-53-27-W4 and services the E 1/2 of Section 4-53-27-W4, as well as the N 1/2 of Section 33-52-27-W4.

The area east of Century Road is serviced by another 21-inch outfall sewer with capacity to service all of Section 2-53-27-4 and Section 11-53-27-4.

A regional sewage transmission main is currently under construction with completion anticipated in 1984. This main will convey sewage from Spruce Grove, Stony Plain and portion of the County of Parkland to a new regional sewage treatment plant on the east side of Edmonton. The regional main will intercept Spruce Grove present outfall

sewers immediately north of Highway 16X, thereby eliminating the need for the Town's present lagoons. The portion of the capacity of the regional sewage main which is designated for Spruce Grove will serve an ultimate population of 40,000 people.

In addition to the Town's two existing outfall sewers a third outfall will be required to service the area generally west of Dog Creek in Sections 9 and 4-53-27-4 and Section 33-52-27-4.

(1) Trunk Sewer Capacity

The capacity of the main trunk sewer is a function of actual population densities and peak flows. Various formulae are used to calculate these peaks. The most common in use in recent years has been the following:

$$\text{Peak Flows} = \text{Maximum Average Daily Flow} \times \left[\frac{1 + \frac{14}{00.5}}{4 + p} \right]$$

Where p = population in thousands

A population of 30,000 with an average daily demand of 60 imperial gallons per capita per day (igpcpd) would yield a peak of approximately 149 igpcpd, or a peak flow in the range of 3,130 igpm. The nominal capacity of the 21-inch sewer is approximately 2,880/igpm.

The Edmonton Regional Utilities report assumes a population of 30,000 people for Spruce Grove, with an average daily demand of 80 igpcpd but a peak flow of 131 igpcpd. This represents a peak flow in the range of 2,730/igpm.

Currently, there are approximately 1,600 acres unserviced within the drainage basin of the existing 21-inch outfall sewer.

The anticipated population contributing to this trunk is not likely to exceed 12 people per gross acre. Gross acreage includes total land area without any deduction of land for circulation, parks and schools, environmental reserve, or other purposes. The approximate future population of the area tributary to this outfall is 27,000 people.

Two factors affecting actual capacity available to the Town within the trunk sewer are infiltration (surface and groundwater) and the volume of sewage entering the system from the Parkland Village Mobile Home Park.

Town of Spruce Grove General Municipal Plan

MAP 4
Sanitary Sewerage System

EXISTING
- Sewer Line
- Sewer Main*
- Parkland Sewage Transmission Line

PROPOSED
- Sewer Line
- Trunk Sewer
- Upgrade Sewage Mains For Business District

* Mains over 250mm in diameter are indicated

150mm	5.9in.	350mm	13.8in.	550mm	21.7in.	750mm	29.5in.	950mm	37.4in.
200	7.9	400	15.7	600	23.6	800	31.5	1000	39.4
250	9.8	450	17.7	650	25.6	850	33.5	1050	41.3
300	11.8	500	19.7	700	27.5	900	35.4	1250	49.2

The proposed servicing systems and alignments are conceptual and may change prior to development of the affected areas.

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The Reid Crowther and Partners Ltd. report of August 9, 1978 indicates that there have been fairly high levels of infiltration. Examinations of records and subsequent investigation by the Town indicate that the largest part of this infiltration is surface water. Corrective steps have been taken to significantly reduce this inflow and the total impact should soon be evident.

The Parkland Village Mobile Home Part reportedly has 80 units connected to the Town's sanitary sewer system. Mobile home parks, where a specific charge based on consumption is not made for water use, are noted in many instances for high water use and resultant large volumes of sewage. If, for example, each of the 80 units were wasting 1 igpm to maintain their trailer services during the winter season, this could represent the equivalent of 2,300 people at 50 igpcpd.

The west half of Section 10-53-27-W4 and the SE 1/4 of Section 9-53-27-W4 currently have trunk sewers within their boundaries and are readily serviceable within the limits of topography and other constraints.

(2) Sewage Treatment

With the completion of the Parkland Sewage Transmission Main and the Regional Sewage Treatment Plant adequate treatment facilities will be available to meet the demands of the Town to a population of 40,000.

3.2.4 Storm Drainage

Development of residential areas since 1967 has included the provision of a partial storm sewer system intercepting runoff in roadway gutters at approximate intervals of 500 feet (see Map 5). Drainage in the Original Townsite in the SW 1/4 of Section 3-53-27-W4 and the initial residential development in Broxton Park is by surface drainage. The Town has commenced a program to provide a partial storm sewer within the Original Townsite and environs to improve drainage in this area, with the first stage being constructed in 1978. Drainage of the industrial areas on the south side of Highway 16 has been by surface drainage utilizing road side swales and ditches.

Runoff presently enters the Town from land to the south. This land, the north 1/2 of Section 33-53-27-W4 and the SW 1/ of Section 2-53-27-W4, is currently being used for agricultural purposes. This runoff will have to be incorporated into drainage proposals for these areas.

Discharge from the existing Town drainage systems enters the Dog Creek drainage course either directly, as is the case with the Millgrove outfall, or by way of overland flow as is the case with the King Street outfall.

Dog Creek is a tributary of Atim Creek which meanders northeasterly and flows into Big Lake.

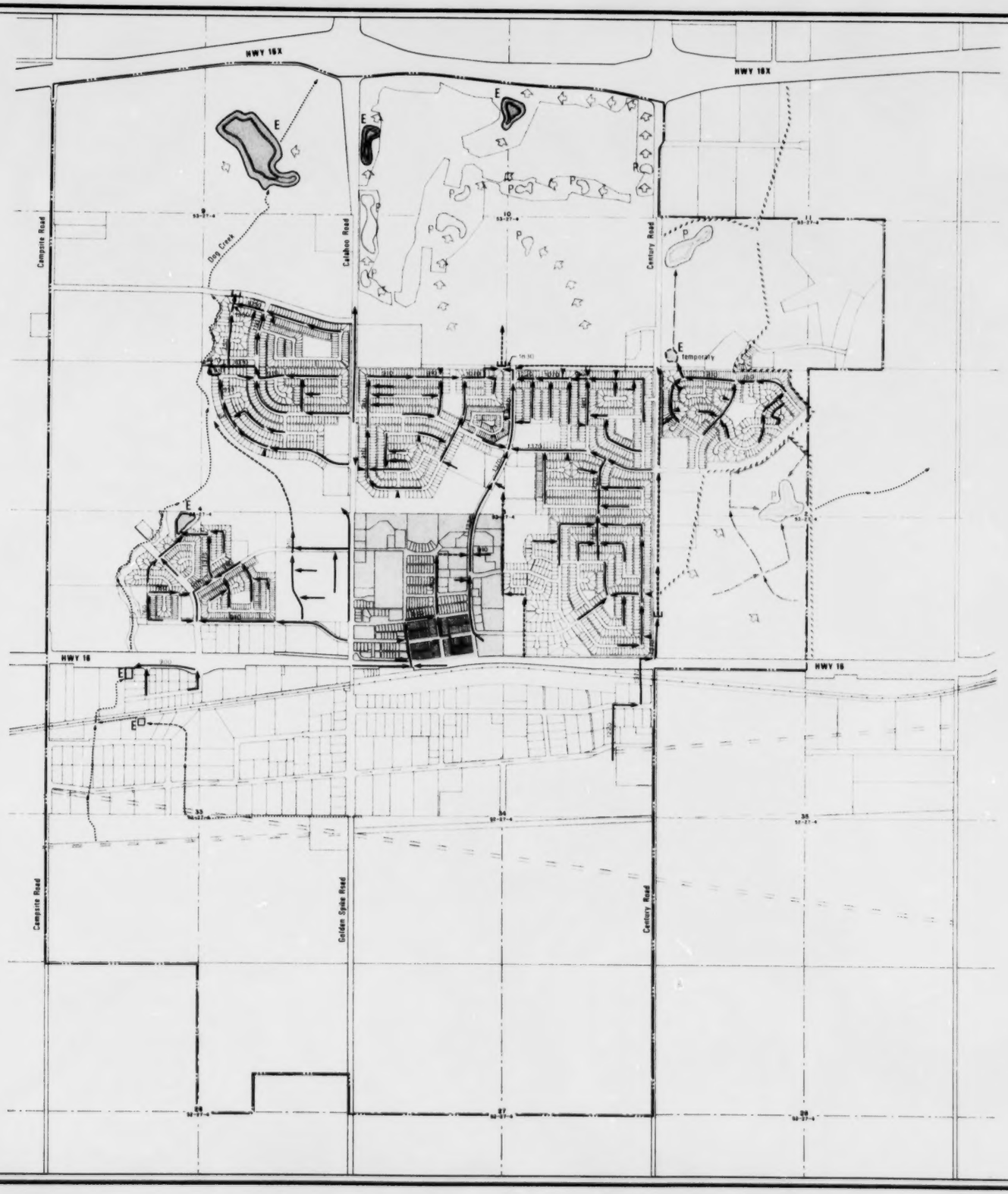
A portion of the area within the Town east of Century Road drains easterly towards another small creek which eventually flows into Atim Creek east of the Dog Creek-Atim Creek confluence.

The total current area of Spruce Grove is within the Atim Creek drainage sub-basin of the Sturgeon River basin. The Sturgeon River basin and its Atim Creek sub-basin have been the subject of ongoing studies by Alberta Environment for a number of years. Alberta Environment's report on Atim Creek (June 1978) concludes that the major flooding area in the basin (Atim Creek) is centered on the first 10 km above Big Lake. Multiple causes of flooding were identified, with the major cause being unavoidable back flooding from Big Lake. Other contributing factors are stormwater, sewage lagoon releases, groundwater introduction to the systems (both natural and pumped) and beaver activity. The Alberta Environment report recommended that future subdivision and development approval in the Atim Creek basin must be contingent on acceptable stormwater drainage control measures.

Reports on drainage have been prepared by Reid Crowther and Partners Ltd. dated February 14, 1978 relating primarily to drainage west of Century Road, and by Stanley and Associates (February 1978, and subsequently dated September 19, 1978) concerning the development area east of Century Road. These reports recommend the use of stormwater detention ponds to control stormwater discharges to the receiving watercourses.

ESTIMATED LAND AREA REQUIRED FOR STORMWATER DETENTION PONDS

Development Area	Pond Location	Detention Pond Area
1. Sec. 4 & 9-53-27-W4	SW1/4 Sec. 4-53-27-W4	3 ac
	E1/2 Sec. 10-53-27-W4	19 ac
2. E1/2 Sec. 2-53-27-W4	E1/2 Sec. 2-53-27-W4	6 ac
3. SW 1/4 Sec. 11-53-27-W4 W1/2 of SE1/4 11-53-27-W4	SW/4 Sec. 2-53-27-W4	7 ac
		57 ac



Town of Spruce Grove General Municipal Plan

MAP 5
Storm Drainage System

EXISTING
- Storm Sewer Main*
- Open Ditch
- Drainage Course
- Retention Pond
- Detention Pond
- Headwall

PROPOSED
- Storm Main
- Drainage
- Retention Pond
- Detention Pond
- Drainage Basin
- Upgrade Storm Drainage For Business District

* Mains over 750 mm in diameter are indicated 910

150mm	÷ 5.9 m	350mm	÷ 13.8 m	550mm	÷ 21.7 m	750mm	÷ 29.5 m	950mm	÷ 37.4 m
200	÷ 7.9	400	÷ 15.7	600	÷ 23.6	800	÷ 31.5	1000	÷ 39.4
250	÷ 9.8	450	÷ 17.7	650	÷ 25.6	850	÷ 33.5	1050	÷ 41.3
300	÷ 11.8	500	÷ 19.7	700	÷ 27.5	900	÷ 35.4	1250	÷ 49.2

The proposed servicing systems and alignments are conceptual and may change prior to development of the affected areas.

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The actual land areas which may be utilized will depend on the number of ponds, their shape and location, and whether the ponds are to be utilized for parks, recreational or other development functions.

Although the design of detention ponds must be meet the requirements of Alberta Environment, the following table outlines estimates of the land areas required for ponds four feet deep, utilizing 7:1 back slopes and a 20 foot buffer around the high water level of the ponds.

The orderly development of the Town may be enhanced by the planning and the implementation of a staged overall drainage scheme to reduce the need for modifying or re-building drainage facilities.

The overall drainage scheme should take into account the existing drainage which enters the Town along its southerly border, as well as the existing drainage systems, the upgrading of drainage as in the redevelopment of the Original Townsite in the SW 1/4 of Section 3-53-27-W4, and also the drainage for new development areas.

The 1978 Alberta Environment Study on Atim Creek indicated that back flooding of Atim Creek on an annual basis from Big Lake is unavoidable. However, an ongoing program to monitor and record flows in the Dog Creek drainage course as well as the Atim Creek will be of assistance in developing design and operating criteria related to stormwater management facilities.

The current Town Public Works practice of removing beaver dams in coordination with Alberta Recreation, Parks and Wildlife should be continued with a view to maintaining the capacities of the existing watercourses.

The practice, now established by Spruce Grove Public Works, of monitoring and recording stream levels during sewage lagoon discharges should also be continued.

A golf course has been developed in the SW, NW and NE 1/4 of Section 10. A series of retention ponds have been constructed on the gulf course which have sufficient capacity to provide the retention for the foregoing quarter sections. Additional stormwater retention will be required for the SE 1/4 of Section 10.

The drainage for all of Section 10 will require the incorporation of the existing King Street outfall storm sewer into the design.

The development of Section 9-53-27-W4 will have to incorporate the Dog Creek drainage course. Approximately 60 acres in the east 1/2 of Section 9-53-27-W4 are currently subject to periodic flooding.

Drainage from the 560 acre area east of Century Road and within the Town boundaries flows in three general directions. In the initial stage of development, it is proposed that drainage flows towards the north. The runoff from the balance of the W 1/2 of Section 2-53-27-W4 flows towards the east. An initial assessment indicates that approximately 12 acres will be required in two separate ponds to provide for the stormwater system runoff from this 560 acres. The drainage system will also need to provide for the runoff which crosses the area from land currently utilized for agricultural purposes south of Highway 16.

Consideration should be given to intercepting the flow in the Century Road drainage ditch and rerouting it towards the east. Elimination of this open ditch on Century Road will provide additional area within the existing Century Road right-of-way for future roadway development.

An initial air photo interpretation, carried out by Thurber and Consultants Ltd. of the future areas to be developed, indicates that high water tables may occur in the west 1/2 of Section 2-53-27-W4 and the NW 1/4 of Section 4-53-27-W4. Confirmation and evaluation of soil conditions in all development areas prior to development will be necessary to assess the requirements for drainage systems.

3.2.5 Roadways

The existing network of roadways in the Spruce Grove area provides for east-west linkages between the City of Edmonton and its suburban communities (see Map 6). North-south linkages provide connection to Highway 16 and to the service communities in the area.

The major east-west arteries are Highways 16 and 16X. Highway 16 is a four lane divided facility currently operating as an expressway or high capacity arterial through Spruce Grove. Highway 16X, has been designed to freeway standard and connects 118 Avenue in the City of Edmonton to Highway 16 at Lake Eden corner.

The current Alberta Transportation proposal provides for grade separated diamond interchanges at Calahoo Road and Century Road on Highway 16X. This route, coupled with a proposed upgrading of Highway 16, will improve access between Edmonton and Spruce Grove.

Two north-south roads, Century Road and Calahoo Road, connect Highway 16 and 16X. Calahoo Road has been classified as a secondary highway and serves its surrounding area.

Within the currently developed area of Spruce Grove, two roadways serve as collectors. They are McLeod Avenue immediately north of Highway 16 and Brookwood/Woodhaven Drive and Millgrove Avenue through the Brookwood, Woodhaven and Millgrove subdivision. King Street serves as a north-south collector between Brookwood and Woodhaven.

As the community grows a hierarchy of streets will need to be developed to discourage utilization of residential streets as through arteries. This requires a system of local residentials feeding onto collectors which in turn feed a arterial roadway system.

Two basic traffic movements will be desirable in Spruce Grove. the north-south movement will carry people from the residential areas to the commercial and industrial areas, and the east-west movement will accommodate people commuting to places of employment in the City of Edmonton and vicinity.

As indicated on Map 6, planning for the eventual development of Spruce Grove will require that construction of north-south arterials, approximately a mile east and west of Century Road and Calahoo Road respectively, be considered. Grove Drive, when completed will act as an east-west arterial serving new development to the north. The construction of these major roadways will encourage traffic to utilize these routes as opposed to residential collectors which have not been designed to handle large volumes of traffic.

In addition, a proposed east-west collector located in the north annexation area, is shown on Map 6. The function of this collector is to move traffic east and west between the proposed north-south arterials, such as Calahoo Road and Century Road. It is recognized that this collector will become part of a local roadway network and, therefore, the alignment may be refined during the preparation of area structure plans.

The arterial roads should be provided with reasonable rights-of-way to permit landscaping, buffering or other noise attenuation requirements as deemed desirable. A report by Underwood McLellan and Associates in 1981 recommends a right-of-way width of 176 feet for arterials roads.

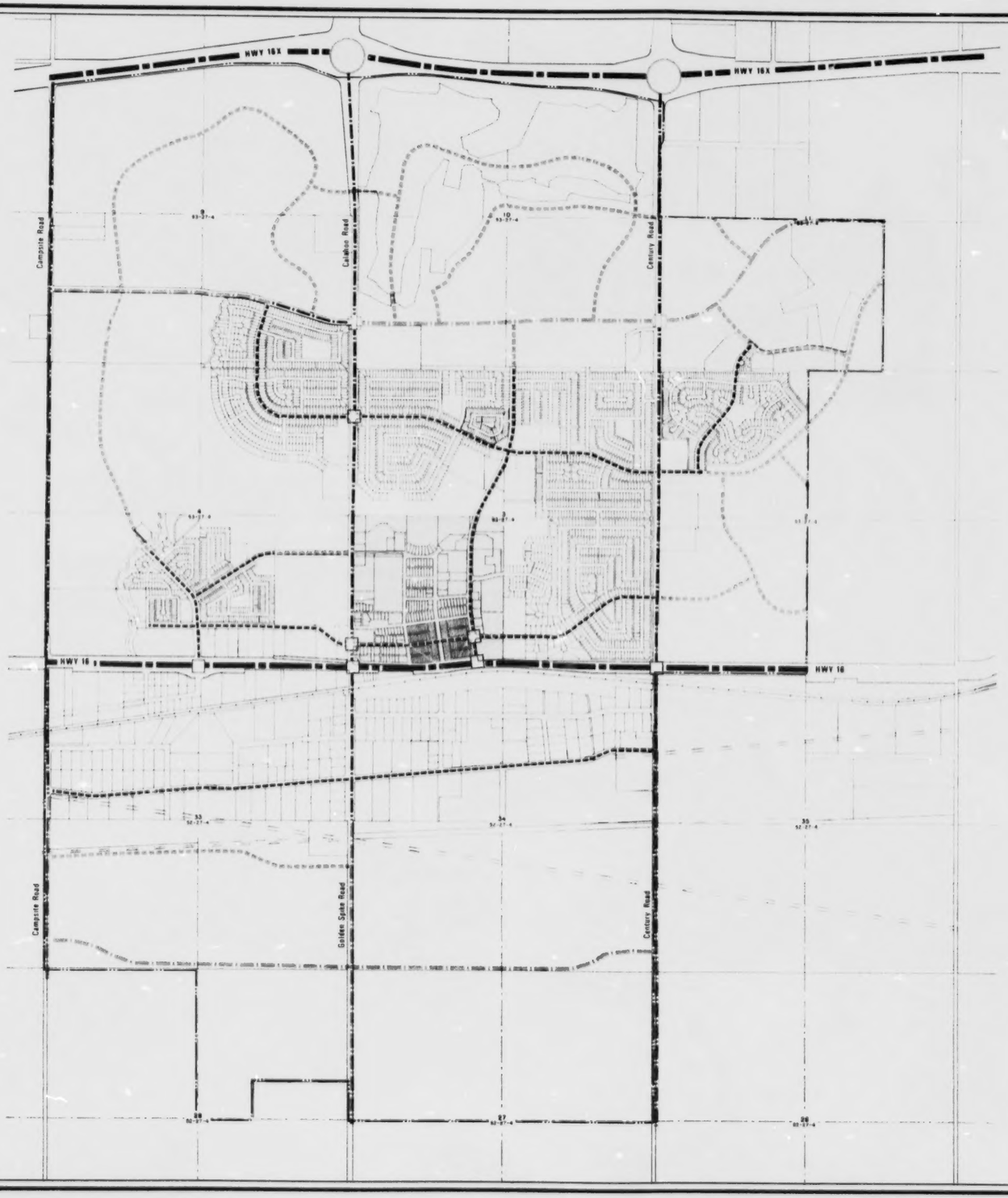
Within the new subdivisions, a series of neighbourhood collectors is proposed which will permit orderly traffic movement onto the arterial roadway system.

The Town has adopted the following GOALS respecting transportation.

(1) To provide for a variety of transportation modes to move goods and people within and through the Town.

(2) To protect the character of local residential streets.

The Town has adopted the following objectives and policies which will guide the future development of the Town's transportation system and its relationship to other land uses.



Town of Spruce Grove General Municipal Plan

MAP 6
Roadway System

EXISTING
- Local
- Collector
- Arterial
- Highway
- Controlled Intersection

PROPOSED
- Local
- Collector
- Arterial
- Controlled Intersection
- Interchange
- Upgrade Roadways For Business District

The proposed servicing systems and alignments are conceptual and may change prior to development of the affected areas.

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3.2.6 Objectives and Policies

OBJECTIVE: To develop an integrated, safe, attractive and efficient transportation system for the movement of people and goods.

POLICIES:

POLICY 8 *The Town shall ensure that the planning and design of the various elements of the transportation system will assist in implementing the policies in the General Municipal Plan concerning the directions of urban development within the Town; the location, type and intensity of land uses; and the density and distribution of population.*

This policy recognizes that transportation facilities have a profound effect upon the characteristics of urban developments and, therefore, transportation improvements should be related to other Town development objectives and policies.

POLICY 9 *The Town shall ensure that the provision of transportation facilities is coordinated with the development of new areas.*

POLICY 10 *The construction or maintenance of roadways shall be coordinated with other utility improvements.*

POLICY 11 *The Town shall ensure that the planning and design of roadways will consider adjacent land uses and the volume and direction of expected traffic.*

POLICY 12 *The Town's roadways construction program will consider the expected social, economic and environmental costs and benefits.*

POLICY 13 *The Town recognizes the importance of land requirements for the movement of goods to, from and within the Town and shall designate efficient truck routes to minimize adverse effects upon established residential areas.*

POLICY 14 *The Town shall establish arterial, collector and local roadway standards and classify all roadways within the Town.*

POLICY 15 *The Town shall require arterial and collector roadways to be designed to facilitate bus movements and possible transit routes.*

POLICY 16 *The Town shall establish a roadways system which provides efficient access to all areas of the community and protects residential areas from undue traffic hazards.*

POLICY 17 *The Town will work with the County of Parkland to protect road allowances within the Town's likely future expansion areas for use as potential major urban roadways.*

It is important that the future functioning of potential major urban roadways should not be compromised by the approval of incompatible developments.

POLICY 18 *The Town shall ensure that policies regarding the provision and regulation of parking will form an integral part of the transportation system.*

POLICY 19 *The Town shall ensure that each residential area is adequately served by a collector roadway.*

OBJECTIVE: To minimize the adverse effects of transportation routes upon adjacent land uses.

POLICIES:

POLICY 20 *The Town shall attempt to provide treed residential boulevards, grassed median strips, landscaped areas, street furniture and street signs along major roadways.*

POLICY 21 *The Town shall require the provision of service roadways and off-street parking for all future strip commercial districts in order to protect the functioning of the adjacent arterial roadways.*

POLICY 22 *The Town shall encourage maximum circulation, but not unduly concentrating vehicular traffic on residential streets, by optimizing the number of outlets from the area in keeping with the surrounding road system.*

POLICY 23 *The Town will endeavour to adequately buffer adjacent land uses from the effects of major roadways.*

OBJECTIVE: To encourage the use of a variety of travel modes.

POLICIES:

POLICY 24 *The Town shall endeavour to develop a circulation system which segregates pedestrian and vehicular traffic.*

POLICY 25 *The Town shall endeavour to develop a pedestrian and bicycle circulation system which links residential areas with schools, shops, parks and recreation facilities.*

3.3 ENVIRONMENTAL CONSERVATION

3.3.1 Preamble

In the process of planning its future development, the Town has recognized the interdependencies between the natural and urban environments.

The Town of Spruce Grove's concern with the conservation of the natural environment is reflected in the following GOALS.

(1) To protect the natural resources contained within the Town of Spruce Grove for the long term benefit of its residents.

(2) To protect environmentally sensitive areas.

(3) To minimize the magnitude and frequency of flooding.

(4) To protect the quality of the air for the long term benefit of the Town's residents.

Objectives have been identified which further specify the intent of the goals. The objectives comprise three broad topic areas: assessing the environmental effects of major development proposals, accumulating environmental information, and the status given to agricultural lands within the Town's present boundaries. Each objective is listed below with its respective policies.

3.3.2 Objectives and Policies

OBJECTIVE: To assess the possible impacts of proposed major developments on the natural environment.

POLICIES:

POLICY 26 *The Town may require the initiators of major developments to prepare environmental impact statements.*

An environmental impact statement should be required to include all of the following:

(a) a full description of the proposed action, including the need for the action, its alternatives, and staging requirements;

(b) a thorough inventory of the natural and human environments affected by the proposed action, including an evaluation of the current condition as a base from which to determine the relative importance of the expected changes;

(c) identification and prediction of potential environmental changes both within and beyond the project and its alternatives;

(d) evaluation of the predicted environmental effects of the proposed action;

(e) identification of measures required to alleviate adverse environmental effects and evaluation of these measures;

(f) an indication of the limitations of the study, criteria used in determining impacts, and interests consulted; and

(g) presentation of the results within a framework that can assist decision-makers in determining the final course of action.

OBJECTIVE: To endeavour to retain significant natural landscape features in their present state.

POLICIES:

POLICY 27 *The Town shall require area structure plans to identify the locations of significant types of vegetation, including woodlots, hedge rows, windbreaks and mature trees, and wherever feasible, propose methods for their protection.*

POLICY 28 *The Town shall establish and may require to be fenced, work limits to ensure that trees or wooded areas worthy of preservation are protected during development of adjacent areas.*

POLICY 29 *Reforestation and improvement of existing woodland areas shall be encouraged.*

POLICY 30 *The Town shall ensure the integrity of the water regime through the protection of aquifers and aquifer recharge areas.*

POLICY 31 *The Town shall collaborate with other municipalities and government agencies to control the use of land adjacent to the Town in order to protect significant environmental features.*

POLICY 32 *The Town shall encourage continued agricultural production on lands proposed for urban development until such lands are required for urban purposes.*

OBJECTIVE: To ensure the protection of unique or threatened species of flora and fauna.

POLICIES:

POLICY 33 *The Town shall require area structure plans to identify the habitats of unique and/or threatened species of flora and fauna.*

3.4 SOCIAL DEVELOPMENT

3.4.1 Preamble

In order to meet the Town's rapidly increasing social service needs, resulting from an increase of almost 800 percent between 1966 and 1973, Town Council adopted a policy in 1974 of temporarily maintaining the rate of population increase within a more manageable 5 to 10 percent yearly range. This strategy was reinforced by the General Municipal Plan of 1979, as well as the general economic slowdown in the 1980's. The more recent period has been characterized by a fluctuating, generally slower growth rate, which has averaged approximately 8 percent since 1979 and has resulted in the Town's 1983 population of 11,307.

Now that the migration of people into the community has levelled off somewhat, it is an appropriate time to concentrate on the social development of Spruce Grove. The Town's concern for its social development is expressed by the following GOAL.

(1) To encourage a socially and physically healthy environment for the varying needs of the Town's residents.

Objectives have been identified which specify the intent of the Town's social development goal. The objectives deal with three broad areas of concern: citizen participation, assessing the social effects of major developments and meeting the social service needs of the community.

3.4.2 Objectives and Policies

OBJECTIVE: To encourage the development of individual and community self-determination; to increase initiative; and to promote the cultural diversity of the Town by providing forum(s) for community participation in local decision-making.

POLICIES:

POLICY 34 *To encourage public participation the Town shall:*

(a) continue to make public the procedures for the evaluation of development proposals;

(b) consider, where appropriate, the following variables when assessing development proposals: needs and values of residents; life styles predominant in an area; privacy; duration of residence; use and location of space; possible effect on mobility rates; provision of adequate community facilities; and possible pollution;

(c) where appropriate, involve the public in the evaluation of development proposals;

(d) continue to seek citizens' views on the development of Spruce Grove through surveys and other public participation processes; and

(e) allow sufficient time for citizens to make their view known.

OBJECTIVE: To minimize the negative social impacts of major development proposals.

POLICIES:

POLICY 35 *The Town shall require that new development in the Town meet reasonable standards for social development services.*

Examples of social development services include educational facilities, recreation facilities and programs, and health care facilities and programs.

OBJECTIVE: To provide opportunities for Spruce Grove residents to pursue educational, recreational and cultural activities.

POLICIES:

POLICY 36 *The Town shall endeavour to ensure that the system of social development services will be designed to meet the needs of the existing and anticipated additional population resulting from new development.*

OBJECTIVE: To provide, in cooperation with the appropriate agencies, for the continued mental and physical health of the residents of Spruce Grove.

POLICIES:

POLICY 37 *The Town shall endeavour to work in cooperation with all publicly and privately sponsored health, education, social and cultural agencies to promote a level of social development services which meet the needs of people who live and work in Spruce Grove.*

Examples of preventive mental and physical health services include the Block Parent Program and Family Life Counselling.

POLICY 38 *The Town shall endeavour to develop and construct the appropriate required facilities and shall initiate suitable programs for the fulfillment of social service needs, either through actions of the Town alone or in cooperation with, or in support of, other agencies and levels of government.*

Examples of such facilities include day care centres and facilities for senior citizens.

OBJECTIVE: To encourage community identity by supporting the establishment of areas for social interaction such as parks, community clubs and organizations as well as other secondary (non-family) support systems.

POLICIES:

POLICY 39 *The Town shall endeavour to review and plan for the improvement of social conditions and social development services.*

POLICY 40 *The Town alone, or in cooperation with other agencies, shall, from time to time, review the needs of the people who live and/or work in Spruce Grove, including but not limited to the following services:*

(a) parks and recreation;
(b) continuing education;
(c) health;
(d) libraries;
(e) personal social services;
(f) day care and nursery school;
(g) public assistance;
(h) cultural services; and
(i) schools.

At a minimum, the Town should review social service needs in conjunction with future General Municipal Plan reviews.

3.5 THE VISUAL LANDSCAPE

3.5.1 Preamble

The results of the public participation program, originally conducted as part of the General Municipal Plan research program, indicated that the residents of Spruce Grove are concerned about the aesthetic quality of the Town. More specifically, the residents are concerned about the maintenance of the existing built-up area of Spruce Grove as well as the integration of new development with existing structure.

Accordingly, the Town has adopted the following GOALS.

(1) To develop a high standard of architectural and landscape design in new development or redevelopment in Spruce Grove.

(2) To improve the appearance of existing development in the Town including the provision of an aesthetic visual landscape along Highway 16.

(3) To protect natural vistas.

3.5.2 Objectives and Policies

OBJECTIVE: To encourage building and landscape design which is consistent with the surrounding neighbourhood's character and landscape.

POLICIES:

POLICY 41 *Development shall be designed in harmonious relationship with the natural landscape. Only such topographical modifications as are necessary for the construction of buildings and services may be carried out so that as much topographical variation as possible is maintained to enhance the appearance of the development.*

POLICY 42 *Natural vistas shall be preserved wherever possible.*

POLICY 43 *When considering a proposed development, the Town may request that the developer enter into an agreement whereby only such trees as those which directly impede the construction of buildings and services may be removed and later replaced by a reasonable number of trees of sufficient maturity to enhance the appearance of the development at the time it is completed.*

POLICY 44 *Subdivision and other development design shall take into account the visual effects of varying land contours and existing and proposed landscaping.*

OBJECTIVE: To promote the attractiveness of residential neighbourhoods and new developments.

POLICIES:

POLICY 45 *Subdivisions and other developments should be designed to achieve a variety of visual effects which may be produced by curved roads, the management of enclosed and open areas, the use of building materials and colours, and use of landscaping and architectural styles.*

POLICY 46 *The Town shall encourage a program of tree planting and tree protection so that all areas are provided with a sufficient number of trees to maintain a high standard of amenity.*

POLICY 47 *Adequate screening shall be required when one land use may detract from the enjoyment and functioning of an adjoining land use. Such screening may include appropriate combinations of the following:*

(a) vegetation in the form of rows of trees and bushes, grassed areas and berming;

(b) architectural screening such as perforated or solid walls, fences, trellis work or other structures, and;

(c) separation of uses by extra distance.

POLICY 48 *The Town shall require buffering and screening to protect new developments from the adverse effects of major roadways.*

POLICY 49 *The Town may require that building setbacks be varied to create an interesting visual landscape.*

POLICY 50 *Particular consideration shall be given to the appearance of major entrances to the Town, along controlled access highways and arterials roads, and at other strategic locations.*

POLICY 51 *To demonstrate good design, the Town shall provide and maintain well-designed public facilities.*

OBJECTIVE: To control and regulate signs, fences, equipment housings, lighting and other such elements.

POLICIES:

POLICY 52 *In redevelopment areas, underground wiring shall be required, insofar as is feasible, having regard to the size of the redevelopment project, the scope of the work involved and the nature of cabling in adjacent areas.*

POLICY 53 *Where overhead wires exist in areas already developed and likely to remain stable in the foreseeable future, the Town shall encourage the burying of such wires when economically feasible and may:*

(a) require this along major streets or when drainage works are undertaken; and

(b) contribute toward the costs of necessary works.

POLICY 54 *Underground wiring for electric power, telephone, cable television and other transmission lines is to be provided in all new residential subdivisions and commercial developments.*

POLICY 55 *All roads, sidewalks and curbs, storm drains and ditches, water and sewage works, and all other public works shall be maintained in good repair.*

POLICY 56 *The location and design of all public signs shall be coordinated so that they form a harmonious part of the street scene. Public signs which do not meet a high standard of design and appearance shall be progressively replaced.*

POLICY 57 *All new street furniture shall be chosen and placed so as to visually enhance the general appearance of the area. Present street furniture that does not meet a high standard of design and appearance shall be progressively replaced.*

POLICY 58 *All signs and advertising devices shall be subject to design control to ensure that the visual attractiveness of the area is maintained and that traffic safety is not detrimentally affected. Regulations for the erection, display and removal of signs shall be established by the Town for this purpose.*

POLICY 59 *Outdoor lighting of any facility shall be so designed as not to produce direct illumination onto adjoining properties or streets.*

3.6 PARKS AND RECREATION

3.6.1 Preamble

The residents of Spruce Grove currently enjoy a variety of high quality recreation facilities. Major facilities which serve the entire community include a covered arena and curling rink and an indoor swimming pool. The Town, through a reciprocal use agreement with the Board of Education, County of Parkland No. 31, has available for public use, major high school facilities including gymnasiums, playing fields, auditoriums and tennis courts. In return, the Town provides the Board of Education with use of the arena and swimming pool at no charge.

In addition to the major recreation facilities, the Town has approximately 298 acres of land for open space and recreational purposes. This includes 60 acres in the northeast received as part of an agreement with Groveco Ltd. and proposed for a major park/community facility. This figure also includes the central wooded area (103 acres) which because of its sensitive nature, is unsuitable for active recreation uses.

The Town's Recreation Master Plan, Trails Master Plan and Recreation Facility Plan provide more detailed parks and recreation planning policies.

The following GOALS have been adopted by the Town respecting recreation.

(1) To conserve and protect significant aspects of the environment within the Town for the enjoyment of present and future generations.

(2) To enhance the quality of life for all citizens of Spruce Grove by ensuring the provision of physical, social, cultural and leisure education opportunities.

(3) To provide the broadest possible range of leisure areas and facilities which are accessible to all residents.

(4) To provide the coordination to ensure the development of leisure services which contribute to the growth of the individual and the community.

3.6.2 Objectives and Policies

OBJECTIVE: To protect the environment and cooperate with other agencies to increase the public's appreciation of the value of natural open space.

POLICIES:

POLICY 60 *The Town shall protect sensitive areas such as stream courses and ravines.*

POLICY 61 *The Town shall ensure that drainage courses are protected by retaining an undeveloped margin along each bank (environmental reserve).*

POLICY 62 *The Town shall acquire from developers, at no cost, land considered unsuitable for development (environmental reserve).*

Environmental reserve shall not be included as park dedication.

OBJECTIVE: To develop recreational areas on the basis of established environmental capabilities which are consistent with sound environmental planning.

POLICIES:

POLICY 63 *The Town shall plan for optimum rather than maximum use levels of open space, thereby preventing undue over-use and environmental damage or deterioration.*

POLICY 64 *The Town shall ensure through the use of appropriate design criteria, that all forms of recreational development are compatible with their natural setting.*

POLICY 65 *Only buildings and structures directly related to the use of recreational lands shall be located in open space areas.*

OBJECTIVE: To develop a linked open space system that incorporates conservation areas, woodlands, valleylands, and neighbourhoods and major parks.

POLICIES:

POLICY 66 *The Town shall endeavour to follow the continuous open space and trail system outlined in a Trails Master Plan to define and link residential and activity areas.*

POLICY 67 *The Town may acquire land through dedication or purchase for the purpose of developing a continuous open space and pedestrian walkway system.*

POLICY 68 *The Town may require in new development areas the provision of pedestrian walkways and bicycle paths within future portions of the Town's continuous open space system.*

OBJECTIVE: To locate park and recreation facilities in close proximity to the expected user population.

POLICIES:

POLICY 69 *The Town shall require, wherever desirable, that public reserve parcels be located adjacent to school sites in order that the open space can be planned as one land area and complex of facilities.*

POLICY 70 *Neighbourhood and subdivision design shall ensure that all parks are easily accessible from the residential areas served and that this access is clearly defined and visible to the public.*

POLICY 71 *Every park shall have sufficient frontage on one or more public roads to allow ease of public access.*

POLICY 72 *The Town shall ensure that a balanced system of park areas is provided to meet neighbourhood, school, district and community-wide needs.*

OBJECTIVE: To provide sufficient areas for active and passive recreation pursuits.

POLICIES:

POLICY 73 *The Town shall ensure through the review of its open space standards that sufficient open space will be provided for existing and anticipated residents.*

POLICY 74 *The Town, where appropriate, shall ensure that public recreation facility developments are in keeping with public recreation needs.*

POLICY 75 *The Town shall acquire sufficient lands with suitable potential for neighbourhood and Town active and passive recreation within the provisions of the Planning Act, 1980.*

POLICY 76 *The Town shall endeavour to cooperate with other municipalities in the provision of regional scale recreation facilities.*

POLICY 77 *The Town shall require applicants applying for higher density residential zoning to analyze the capacity of the existing education and recreation areas and facilities.*

The Planning Act, 1980 permits the imposition of a redevelopment levy for the provision of land for park or school or recreation facilities in redevelopment areas.

POLICY 78 *The Town, where desirable, shall stage the construction of recreation areas and facilities in newly developed areas.*

POLICY 79 *The Town shall encourage citizen involvement in the design of recreation areas and facilities in newly developed areas.*

POLICY 80 *The Town shall encourage developers to provide recreation areas and facilities for the existing and prospective residents.*

OBJECTIVE: To provide recreation and cultural programs which meet the needs of the Town's existing and prospective residents.

POLICIES:

POLICY 81 *The Town shall endeavour to plan programs and facilities for multiple-use, year-round use and family-use.*

POLICY 82 *The Town shall endeavour to develop efficient supervision, operation, and maintenance of facilities and programs.*

OBJECTIVE: To provide adequate facilities for the accommodation of various recreation and cultural programs.

POLICIES:

POLICY 83 *The Town shall undertake a study of the cultural needs of the existing and prospective residents in order to provide appropriate programs and facilities to satisfy these needs.*

POLICY 84 *The Town shall undertake "user" studies as required in order to facilitate parks planning.*

3.7 PUBLIC AND SEMI-PUBLIC LAND USES

3.7.1 Preamble

Public and semi-public land uses include schools, libraries, churches, cemeteries, as well as ambulance, police, and firefighting services. The schools constitute the most important of these land uses in terms of the community's activity patterns and utilize the greatest land area.

The following GOAL has been adopted by the Town of Spruce Grove respecting public and semi-public land uses.

> To ensure the efficient and economical provision of public facilities to meet the needs of the residents of the Town.

3.7.2 Objectives and Policies

OBJECTIVE: To ensure that all necessary public and semi-public uses are developed in appropriate locations close to the population serviced.

POLICIES:

The following policies will assist the Town in achieving the above noted objectives. Additional explanatory notes follow the policy statements.

POLICY 85 *The Town shall ensure that school sites are located so as to minimise walking distances.*

The Town accepts the following maximum walking distances as guidelines for the location of schools.

(a) Elementary schools: 1/2 mile.
(b) Junior High Schools: 1 mile.
(c) Senior High Schools: 1-1/2 miles.

POLICY 86 *The Town shall endeavour to locate elementary school sites so that young children do not have to cross major traffic arteries or other physical or man-made barriers.*

Residential neighbourhoods should contain a population large enough to support an elementary school.

POLICY 87 *The Town shall locate junior and senior high schools in proximity to, but not necessarily adjacent to, potential transit arteries.*

POLICY 88 *The Town shall periodically assess the likely future adequacy of its public facilities and shall periodically request other governments and agencies to assess the adequacy of their public services and facilities within the Town.*

The Town should request the cooperation of other public service agencies in periodic General Municipal Plan reviews.

POLICY 89 *The Town may request developers to assist in providing required public facilities.*

POLICY 90 *The Town shall endeavour to locate community services in proximity to, or highly accessible and visible to the residents that they are intended to serve.*

POLICY 91 *Where necessary, visual screening, planting and/or fencing shall be provided between public uses and nearby residential areas.*

POLICY 92 *The Town shall require all future public facilities and, where practical, all existing public facilities, to be designed to meet the needs of handicapped persons.*

POLICY 93 *Insofar as is practical, the design of public buildings shall be compatible with the surrounding areas.*

POLICY 94 *The Town shall encourage public facility designs which are capable of phased expansion and multi-purpose use.*

OBJECTIVE: To provide sites of suitable size for public facilities.

POLICIES:

POLICY 95 *Subject to the Public Reserves agreement, Schedule 'A' between the County of Parkland No. 31, the Spruce Grove Catholic Separate School District No. 128, and the Town of Spruce Grove, the land requirements for schools shall be as follows:*

(a) Elementary Schools: 2.5 acres (school building) plus 5.0 acres (joint use area) - TOTAL 7.5 acres.

(b) Junior High Schools: 3.5 acres (school building) plus 6.5 acres (joint use area) - TOTAL 10 acres.

(c) Senior High Schools: 7.5 acres (school building) plus 12.5 acres (joint use area) - TOTAL 20 acres.

POLICY 96 *The Town shall require school and park sites to be designated in area structure plans.*

POLICY 97 *The Town, in cooperation with other governments and agencies, shall ensure that adequate sites are provided for fire, police, and ambulance services.*

POLICY 98 *The Town shall continue to cooperate with other governments, agencies, groups, and individuals in the provision of sites for community health and social services.*

Health and social services include but are not limited to the following: physicians, dentists, public health units, ambulances, hospitals, nursing homes, senior citizen lodges, day care, counselling and churches.

POLICY 99 *The Town shall continue to support comprehensive residential, school and park planning in new development areas.*

OBJECTIVE: To encourage the joint use of school and town facilities.

POLICIES:

POLICY 100 *The Town shall continue to support equitable joint municipal agreements for the use of public services and facilities.*

Examples include, joint use agreements and reciprocal use agreements for such services and facilities as schools and parks, fire, police and ambulance services.

POLICY 101 *The Town supports the concept of school park, recreation and, where possible other facilities, serving as a unified neighbourhood or community focus.*

3.8 RESIDENTIAL DEVELOPMENT

3.8.1 Preamble

The General Municipal Plan in 1979 identified the Town of Spruce Grove as being primarily a dormitory community to the City of Edmonton, with an increasing role to play as a satellite industrial centre within the metropolitan region.

With the anticipated change in role, a more diverse population with differing occupations and housing needs was projected and it was suggested that a greater variety of housing types would be required in the future. A target for a mix of 75 percent single family housing and not more than 25 percent multiple family was set for future residential developments.

In fact, the 1982 Municipal Census shows the proportion of single-detached dwellings to be 75.4 percent of the total, down from 81.9 percent in the 1976 Census, while the share of households residing in duplexes and row housing has increased from 3.2 percent in 1976 to 6.9 percent in 1982. The proportion of apartment dwellers has increased from 2.7 percent in 1976 to 8.9 percent of all households. The proportion of mobile homes had continued to decline from 12.1 percent to 6.2 percent. The percentage ownership of dwelling units has declined from 87 percent to 78 percent consistent with the shift from single-detached units to other forms of accommodation.

The 1979 General Municipal Plan utilized a Housing Target approach to supplying the anticipated needs of the community over the long term.

3.8.2 Housing Targets

To prepare housing targets, updated information respecting household size, housing mix and the Town's stated housing objectives have been combined with population projections for the Town of Spruce Grove.

The average household size is 2.90 persons per dwelling unit, down from the 3.8 average identified during the preparation of the previous General Municipal Plan (See Table 1).

Five year population projections for the Town have been prepared by the Edmonton Metropolitan Regional Planning Commission (See Table 2). These projections are based on an average annual growth rate of 4 to 6 percent for the period 1984 to 1996.

TABLE 3

HOUSEHOLD SIZE BY TYPE OF DWELLING

Housing Type	Population Per Unit[1] (1978)	Population Per Unit[2] (1982)
Singles and Semi-detached	3.85	3.55
Mobile Homes	3.50	2.78
Townhouses	2.90	3.18
Apartments	2.20	2.10
Mean (Avg) Household Size	3.80	2.90

Sources: [1] Community Survey data, October 1978.

[2] Municipal Census, 1982.

TABLE 4

POPULATION PROJECTIONS FOR FIVE YEAR TIME PERIODS TO 1991

	1983	1986	1991
Population	11,307	12,719 to 13,467	15,474 to 18,022

Avg. Annual Rate of Growth: 1976-1981: 8.3 percent
1981-1991: 4 percent to 6 percent.

Source: Edmonton Metropolitan Regional Planning Commission.

TABLE 5

HOUSING DEMAND

Year	TYPE OF HOUSING Additional Singles and Semis (3.55 persons per unit)[1]	Additional Multiple (2.55 persons per unit)[2]
1984-1986	377 units[1]	175 units[1]
1986-1991	1,150 units[2]	533 units[2]

[1] Assuming 1,786 additional persons with a 75% to 25%, single to multiple unit split.

[2] Assuming 5,441 additional persons with a 75% to 25%, single to multiple unit split.

Table 5 illustrates the housing units required to the end of 1986 and to the end of 1991. It is important to note that reduced average household sizes were used in preparing these estimates. To the end of 1986, the Town should anticipate that approximately 377 single and semi-detached units and approximately 175 apartment and townhousing units will be required to maintain the desired housing ratio. To the end of 1991, the projected requirement is an additional 1,150 single and semi-detached units and an additional 533 multiple units.

3.8.3 Residential Land Demand

Using accepted gross density standards of 5 single family units per gross acre and 12 multiple family units per gross acre, an additional 90 acres will be required to the end of 1986 and an additional 274 residential acres to the end of 1991.

The following GOALS have been adopted by the Town of Spruce Grove.

(1) To encourage a full range of housing which is affordable to various income groups within the municipality.

(2) To ensure that all residents of the Town can live in a dwelling which is situated in a liveable urban environment.

The following residential objectives and policies are divided into three broad topic areas: Area Structure Plans, Subdivision, and Development.

3.8.4 Density Allocation

The Town's existing suburban residential neighbourhoods have an approximate density of 16 persons per gross acre (39.5 persons per gross hectare). There are three further areas within the Town where area structure plans have been approved and thereby, have fixed densities. These areas and their respective densities include:

Grove Meadows Area Structure Plan - 20 persons per gross acre

Mobile Home Development
Area Structure Plan - 17.7 persons per gross acre

North Annexation Area
Structure Plan - 20 persons per gross acre

These planned areas fall in the 17 to 21 persons per gross acre range. Most future residential should fall within the 17 to 19 persons per gross acre range, however, there are certain locational criteria which could result in some of the Town's future residential districts being more appropriate for the higher density range 19-21 persons per gross acre (47.52 persons per gross hectare) than others.

These criteria include:

(i) proximity of residential districts to the central area;

(ii) proximity to major arterial roadways;

(iii) proximity to, or having within the residential district itself, a major environmental reserve area, thereby, creating considerably more open space and as a result a more appropriate location for a higher density range of development.

The acceptable density for the Town's future residential areas should be approximately 19 persons per gross acre (47 persons per gross hectare). Not all area structure plans will satisfy this guideline, however, when the various density ranges are averaged, the overall density of the Town should be approximately 19 persons per gross acre.

3.8.5 Objectives and Policies

Area Structure Plans

OBJECTIVE: To ensure the residential expansion takes place in an efficient and economical manner.

POLICIES:

POLICY 102 *The Town shall require that an area structure plan be prepared prior to major subdivision.*

The area structure plan will provide a framework for subsequent subdivision and development of an area of land.

POLICY 103 *The Town may require the preparation of servicing concepts and detailed geotechnical studies prior to the approval of area structure plans and/or subdivision plans, in order that the serviceability and suitability of land for the proposed use may be determined.*

POLICY 104 *The Town shall direct expansion on the basis of an orderly and economical staging program in order to minimise servicing costs.*

POLICY 105 *The Town shall endeavour to cooperate with appropriate agencies to develop the public use elements of each structure plan area to avoid overcrowding of public services.*

OBJECTIVE: To ensure that residential development are compatible with natural systems by encouraging the preparation of an environmental impact assessment before the proposed developments are approved.

POLICIES:

POLICY 106 *The Town may require the incorporation of an environmental impact statement as part of an area structure plan.*

See Policy 32 for an elaboration on the contents of an environmental impact statement.

POLICY 107 *In accordance with Policies 33 and 38, significant types of vegetation and habitats of unique and/or threatened species of flora and fauna, where present, shall be identified in an area structure plan.*

OBJECTIVE: To endeavour to provide a mix of housing which meets community life styles, stages in the life cycle, income levels, and aspirations.

POLICIES:

POLICY 108 *The Town shall adopt density standards for distinct types of residential areas within each area structure plan. The overall density for the Town, however, should be approximately 19 persons per gross acre.*

It should be noted that these density ranges are based on an assumed average of 2.9 persons per dwelling unit.

POLICY 109 *An overall housing mix of no less than 75 percent single family dwellings and no more than 25 percent multiple family housing will be encouraged in all future residential developments.*

Individual housing developments may vary from this guidelines, however, it is the overall policy of the Town to seek a diversified housing stock.

POLICY 110 *The Town shall ensure that different types of housing are well integrated in neighbourhoods so that a smooth transition is achieved from one dwelling type to another.*

Subdivision

OBJECTIVE: To ensure that a common standard of municipal residential services will be available to the residents of all types of housing.

POLICIES:

POLICY 111 *The Town may require the preparation of a detailed servicing scheme prior to subdivision plan approval in order to determine the feasibility of all subdivision proposals.*

POLICY 112 *The Town shall require that utility alignments balance economy with imaginative subdivision design.*

POLICY 113 *The Town shall require that all power and telephone lines to be placed underground in all future residential areas.*

POLICY 114 *The Town shall ensure that multiple family housing sites are located in a number of locations rather than concentrated in one area.*

POLICY 115 *The Town shall encourage the location of multiple family housing in areas adjacent to major community facilities, transportation routes, schools, recreation and commercial facilities, institutional buildings or significant natural amenities.*

POLICY 116 *The Town shall prevent the intrusion of incompatible land uses into existing and proposed residential areas.*

OBJECTIVE: To promote energy conserving and land efficient residential development.

POLICIES:

POLICY 117 *The Town shall endeavour to ensure that new residential areas are designed to conserve land and energy by permitting increased densities, development of cluster housing and zero lot line projects, and through site plan designs which maximize the exposure to direct sunlight and minimize the negative effects of winter winds.*

Development

OBJECTIVE: To promote high standards of safety, convenience, privacy and amenity in all residential areas.

POLICIES:

POLICY 118 *The Town shall encourage the private sector to consider innovative housing designs which have been successful elsewhere in meeting housing needs.*

POLICY 119 *The Town favours multiple family housing sites no larger than 3 acres in size, but will entertain proposals for multiple family housing on larger sites, depending upon the proposed on-site amenities.*

POLICY 120 *The Town shall ensure that multiple family housing developments provide on-site recreation areas to meet some of the recreation needs of the residents.*

POLICY 121 *The Town shall ensure that multiple family housing developments provide adequate on-site parking for tenants and guests as well as storage areas.*

POLICY 122 *The Town shall adopt development guidelines which will encourage high quality mobile home subdivision and/or park development and high quality multiple family residential developments.*

The guidelines noted above may include density, flexible setbacks, siting relative to micro-climate considerations, architectural appearance, landscaping, screening of parking areas, maximum site sizes, proximity to similar developments and compatibility with adjacent land uses.

POLICY 123 *The Town shall ensure that suitable noise attenuation facilities are used in areas where residential development is located adjacent to major arterial roadways.*

POLICY 124 *The Town shall encourage street landscaping in all new areas.*

OBJECTIVE: To encourage the necessary housing for persons on modest or fixed incomes in cooperation with governmental agencies, non-profit organizations and the private sector.

POLICIES:

POLICY 125 *The Town shall encourage, where desirable, housing types, dwelling lot sizes, and types of tenure, including mobile homes and publicly assisted housing in order to meet the needs of existing and prospective residents.*

POLICY 126 *The Town shall encourage, where desirable, cooperative and self-help housing developments.*

3.9 COMMERCIAL DEVELOPMENT

3.9.1 Preamble

In the recent past, Spruce Grove has primarily functioned as a dormitory community linked to the City of Edmonton. With the growth of the Town and the establishment of a broader economic base, that role has shifted towards more economic independence, although the primary employment area remains the City of Edmonton. A recently completed study of the Edmonton regional trade area found that 29.7 percent of Spruce Grove's residents are employed locally, and 57.7 percent are employed in the City of Edmonton. The tendency towards more economic independence is illustrated by the results of the study.

Over 85 percent of residents shop locally for goods or services such as veterinarian, groceries, drycleaning and laundry, liquor, and bank services. Over 60 percent of residents indicate that they obtain hardware, car or truck services and dental services locally. Other services such as restaurants, insurance, medical doctor, movies, are equally as likely to be obtained locally as in Edmonton. As expected, items which are major, or which are in limited supply in Spruce Grove are likely (80+ percent) to be obtained in Edmonton. These include furniture, major appliances, clothing and shoes, and hospital services. Residents surveyed indicated that they made 4.5 trips per month to Edmonton for shopping and 6.4 for other reasons not including work. This compares with 8.9 shopping trips per month locally and 11.5 for other reasons.

The Town of Spruce Grove, with the adoption of the Central Area redevelopment plan has chosen a strategy of supporting and emphasizing present commercial locations. Neighbourhood convenience commercial will be permitted as required within residential neighbourhoods on a small scale so as not to unduly compete with the Central Area. The Town will continue to allow commercial development adjacent to Highway 16, provided that it is well designed and has appropriate transportation access and egress.

The Town's GOAL regarding commercial development remains:

> To strengthen the overall commercial function of the Town and to provide for a variety of commercial activities to satisfy the needs of an expanding community.

3.9.2 Objectives and Policies

OBJECTIVE: To promote safe, efficient and attractive commercial areas.

POLICIES:

POLICY 127 *The Town shall encourage the integration of a variety of compatible uses within the commercial areas.*

The Town may permit commercial activities which intend to provide goods and services to only a limited area of Town to locate in compact neighbourhood convenience districts.

POLICY 128 *The Town shall require area structure plans of proposed neighbourhood areas to indicate the location, size, and character of proposed convenience commercial areas in new development areas.*

POLICY 129 *The Town shall ensure that commercial activities are accessible to the population they are intended to serve.*

POLICY 130 *The Town shall continue to require future commercial areas to provide adequate off-street parking and loading/unloading areas.*

The Town may also wish to consider the provision of municipal parking lots financed by contributions from businesses in lieu of parking on their sites.

POLICY 131 *The Town shall require parking areas to be conveniently accessible to future commercial areas.*

POLICY 132 *The Town shall require commercial development to be designed in such a manner that traffic hazards are minimized.*

OBJECTIVE: To encourage the continuing development of a full range of commercial activities in the Town.

The following policies, in combination with the future land use plan, indicate the basics of the Town's commercial strategy.

POLICIES:

POLICY 133 *The Town shall encourage commercial activities which provide goods and services to the Town and its trading area population to locate in the historical business core.*

POLICY 134 *The Town shall designate lands of sufficient size and in suitable locations in order to provide for a variety of types of commercial areas.*

POLICY 135 *The Town shall encourage comprehensively planned, compact commercial development rather than scattered commercial activities.*

POLICY 136 *The Town shall require that public and private redevelopment schemes conform to the Spruce Grove Central Area Redevelopment Plan.*

POLICY 137 *The historical central core of the Town is a key element of the community and its retail, administrative and social functions should be maintained and strengthened.*

3.10 INDUSTRIAL DEVELOPMENT

3.10.1 Preamble

Spruce Grove undoubtedly belongs among the better endowed metropolitan municipalities with respect to the potential for future industrial growth. It is advantageously located on Highway 16 which provides excellent accessibility to the industrial and commercial areas and transportation facilities of the City of Edmonton as well as the International Airport. Its location enables easy commuting for the Edmonton residents who work in Spruce Grove. In addition, Highway 16 is part of the Yellowhead route which provides Edmonton area firms with road access to both eastern and western Canadian markets. Planned improvements to this Highway, together with the addition of Highway 16X along the northern boundary of the Town and the designation of Calahoo Road as a Secondary Highway, are likely to increase Spruce Grove's accessibility and thus enhance its potential for industrial development. An important component of the transportation access available to the firms in the Town is the Canadian National Railway mainline located adjacent to the industrial park.

Since the General Municipal Plan was adopted in 1979, two annexations to the south have added approximately 1,000 acres of land to the Town for industrial uses. These were approved in 1980 and became effective January 1, 1981. To date, no significant development has taken place in these areas as demand for industrial land within the region has fallen and there are still parcels within the existing industrial parks. At present absorption rates, the Town is well supplied with industrial land for the short to medium term.

3.10.2 Objectives and Policies

OBJECTIVE: To encourage industrial development in order to increase community employment opportunities, minimize home to work travel, and improve the Town's tax base.

POLICIES:

POLICY 138 *The Town shall continue to seek industries which could successfully locate within the community.*

POLICY 139 *The Town may use various incentives to encourage industrial activities which serve metropolitan and large scale markets to locate in the Town in order to develop a stable, healthy and growing economy.*

POLICY 140 *The Town shall seek the assistance of other levels of government in order to promote the Town's industrial development advantages.*

The Town may wish to take advantage of specific Provincial Government programs for industrial development. The Town, in cooperation with Alberta Business Development and Tourism, may choose to investigate the types of industries which are most appropriate to Spruce Grove.

POLICY 141 *The Town shall endeavour, through its commercial development policies, to attract business and professional services which are supportive of its industrial development.*

OBJECTIVE: To ensure the creation of high quality industrial areas which are compatible with the non-industrial areas of the Town.

POLICIES:

POLICY 142 *The Town shall designate lands of sufficient size and in suitable locations in order to provide for a variety of industries.*

POLICY 143 *The Town shall continue to require industrial development to be located south of Highway 16 and the Canadian National Railway mainline in order that it may remain separate from residential development.*

POLICY 144 *The Town shall require industrial development sites to be preserviced.*

POLICY 145 *The Town may negotiate development agreements respecting industrial development that commit the developer to implement agreements with purchasers to commence construction within a specified time frame.*

POLICY 146 *The Town shall encourage high standards of industrial subdivision and site design, especially where such development is adjacent to major access roads.*

POLICY 147 *The Town shall require, where appropriate, future industrial areas to include ample and direct access to major roadway and the railway.*

3.11 REDEVELOPMENT

3.11.1 Preamble

The decline in new growth and construction rates over the last three years has afforded the Town an opportunity to focus on existing built-up areas and infrastructure. The Central Area Redevelopment Plan was approved in 1982 and outlines the Town's development philosophy for the historical core area. The Town would like to see the central core area maintain its role as the commercial, business and institutional focus of the community. Adjacent residential areas should be preserved where possible, however selective redevelopment of commercial and residential uses to higher intensity uses may occur in those areas zoned for commercial or direct control within the Land Use Bylaw.

The following GOALS have been adopted by the Town respecting redevelopment.

(1) To preserve and maintain a sense of community or neighbourhood in older areas of Town.

(2) To encourage and maintain a high quality built environment in older areas of the Town.

3.11.2 Objectives and Policies

OBJECTIVE: To preserve important and historical elements of the community.

POLICIES:

POLICY 148 *The Town shall endeavour to preserve sites and structures of historical, architectural and aesthetic significance.*

POLICY 149 *The Town shall take all practical measures to preserve and relocate structures worthy of preservation from redevelopment sites to other appropriate locations.*

OBJECTIVE: To rehabilitate whenever possible and redevelop only when necessary, the existing housing stock in residentially zoned areas.

POLICIES:

POLICY 150 *The Town shall encourage, wherever practical, infilling of vacant lots in residential areas and subdivision of developable and serviceable vacant lands in order to maximize use of existing services and facilities.*

POLICY 151 *The Town shall encourage the conservation and rehabilitation of good housing and residential neighbourhoods in order that a satisfactory living environment can continue to be provided.*

POLICY 152 *Where redevelopment takes place, the Town shall endeavour to ensure that the dislocation of people, housing and services is minimized and adequate provision is made to satisfactorily relocate people and services.*

OBJECTIVE: To maintain and upgrade the present housing stock through the adoption and enforcement of minimum standards and participation in public sector housing programs at the various governmental levels.

POLICIES:

POLICY 153 *The Town shall encourage the comprehensive rehabilitation and/or redevelopment of housing and residential areas that provide a substandard living environment.*

Comprehensive redevelopment should include: an appraisal of public facilities and open space needs, circulation requirements, the equitable resettlement of existing residents, including public housing needs if appropriate and the feasibility of conserving good housing. Redevelopment should be undertaken in accord with an area redevelopment plan.

3.12 FINANCIAL DEVELOPMENT

3.12.1 Preamble

The development potential of the Town of Spruce Grove is in part determined by its locational and physical characteristics, as well as by its ability to finance various facilities and public services required by increasing population growth, and industrial and commercial development.

Municipal financial activities consist of two basic operations: collecting revenue, and spending the collected funds for the provision of public goods and services. The Town of Spruce Grove collects revenue primarily through taxation, grants from other levels of government, and municipal licences, fines, permits and rentals.

Municipal expenditures generally reflect the amount and quality of public goods and services supplied and their costs. The choice, quantity and quality of public goods and services are determined by the local preferences and tastes which can be satisfied within the limits imposed by local fiscal capacity and by the willingness of local residents to tax themselves.

Inter-municipal differences in costs of local public services generally depend on a number of factors. They are, to some extent, related to relatively subjective factors involving local tastes for various municipal services, efficiency of municipal administration and the ability of the municipality to negotiate advantageous development agreements with local land developers. To a large degree, these differences also reflect more objective factors such as the size of the municipality, the presence and extent of special populations (such as school age children), local development patterns and geographical characteristics of local areas.

The Town has adopted the following GOAL respecting financial development.

> To ensure that the Town's financial position is protected and its residents are not unduly taxed in the provision of municipal services.

3.12.2 Objectives and Policies

OBJECTIVE: To monitor the financial position of the Town and adjust the rate, type, and conditions of growth accordingly.

POLICIES:

POLICY 154 *The Town shall prepare a financial plan and establish an appropriate formula which will consider residential versus non-residential assessment and Federal-Provincial grants to ensure that the financial well-being of the municipality is protected.*

The financial plan should be coordinated with the Boards of Education. The Town will endeavour to develop a five year Capital Works Program and Budget for all municipal services and update it on an annual basis.

POLICY 155 *Where it is apparent that the Town's financial stability will be seriously affected and will not be improved within the review of the General Municipal Plan, the Town may defer approval of any residential development proposal or part therefore, until such time as Council is satisfied that its financial situation will no longer be impaired.*

POLICY 156 *To achieve the housing goals of the General Municipal Plan, or to promote the provision of housing for low income or elderly persons, the Town may consider the approval of residential development proposals, deferred in accordance with Policy 156 above, provided that grants or contributions are made to the Town from Federal and/or Provincial programs to offset the resulting assessment deficit for a reasonable period of time.*

POLICY 157 *The Town shall require all developments to equitably share the financial burden associated with urban development through the application of appropriate charges and the negotiation of development agreements.*

POLICY 158 *Calculations for off-site levy charges should be checked every year and if necessary updated to reflect current costs and the rate of inflation.*

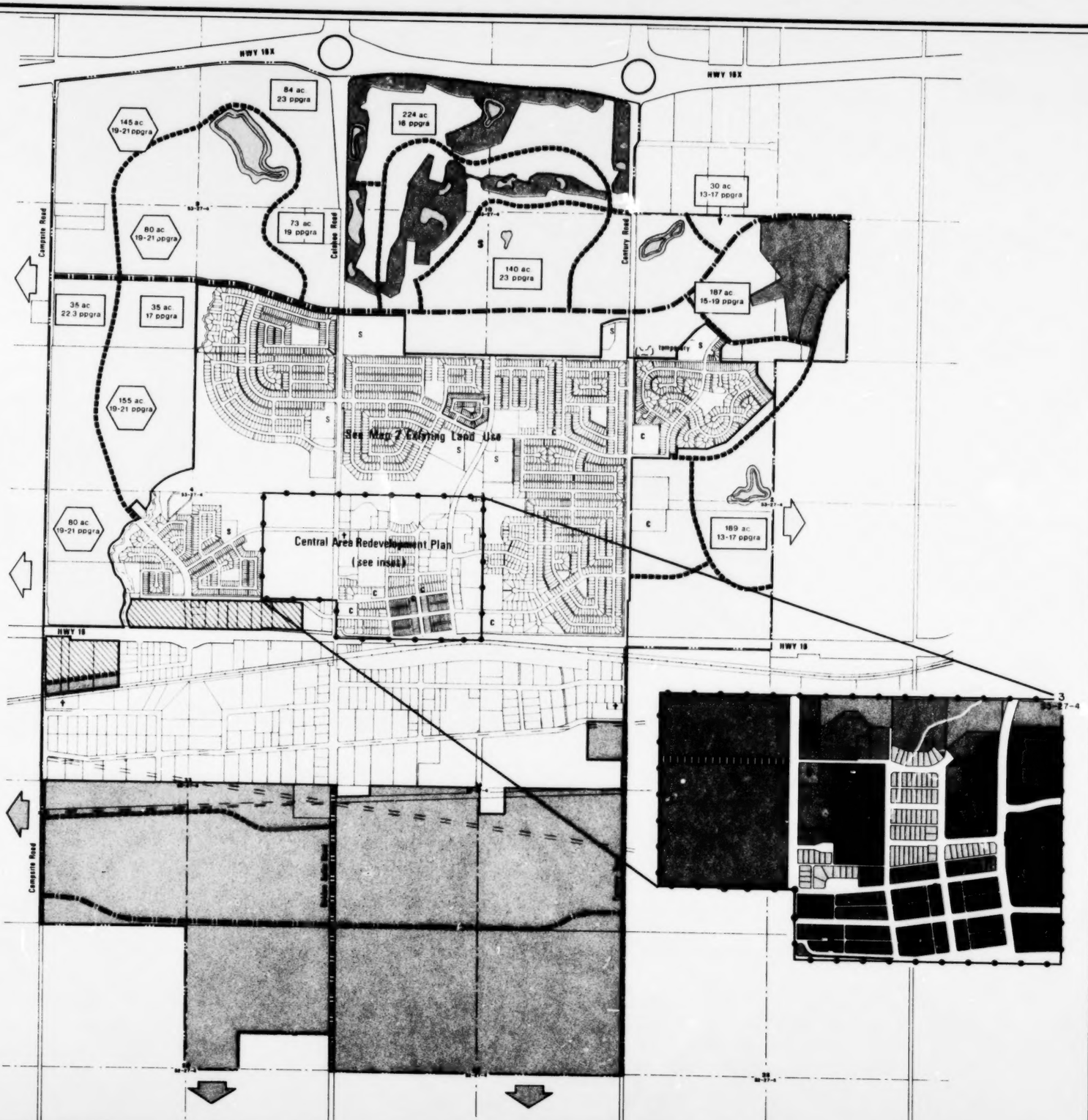
OBJECTIVE: To continue to assess all proposed developments with respect to their financial effects on the existing residents and the Town as a corporation prior to approval being granted.

POLICIES:

POLICY 159 *The Town may, when considering an area structure plan and/or residential development proposals, require a financial impact study to determine the effects of the proposal upon the Town.*

Town of Spruce Grove General Municipal Plan

MAP 7
Future Land Use



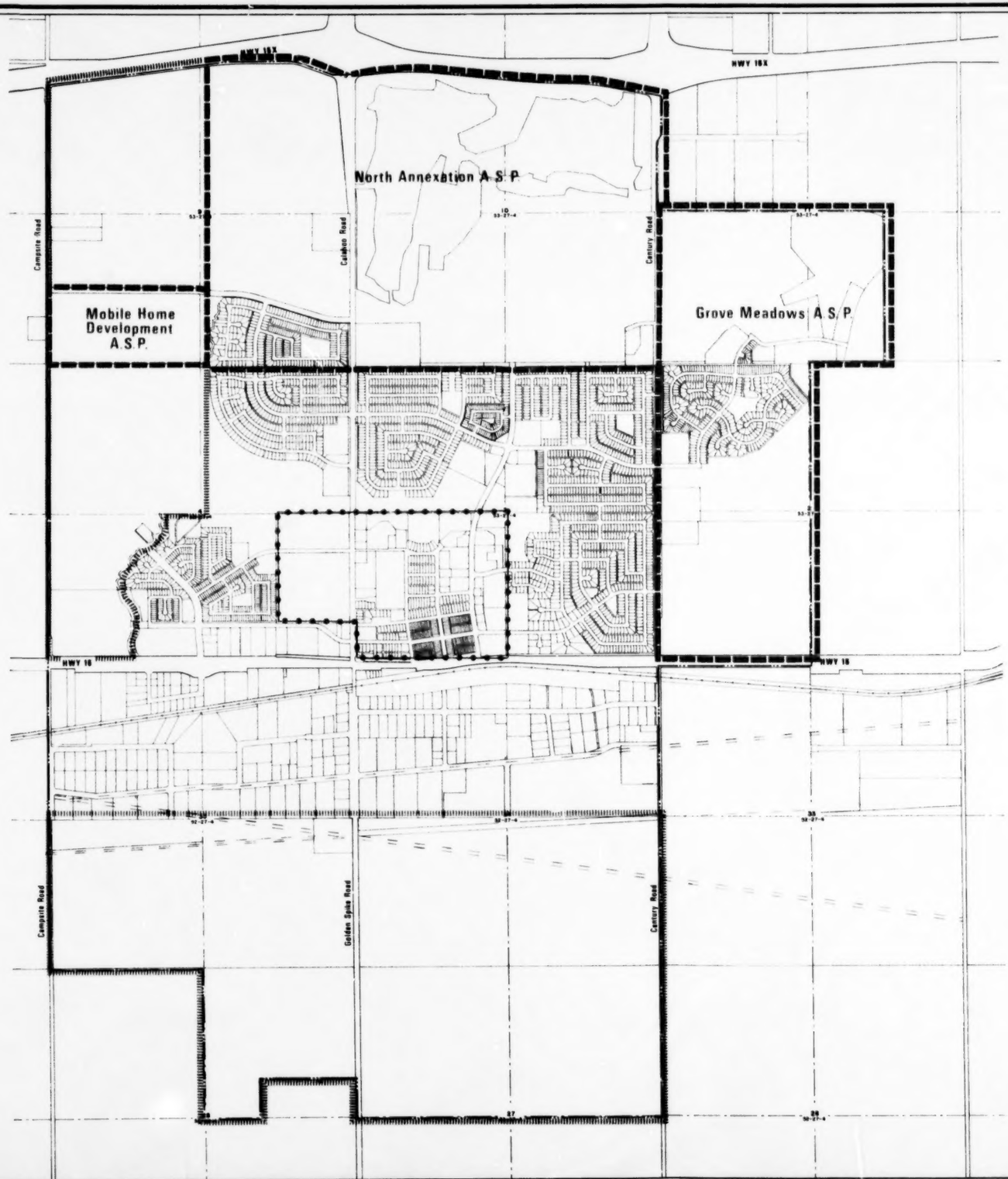
- Residential - Future Development
- Residential - Low Density
- Residential - Medium Density
- Commercial - Town Centre
- Commercial - Mixed Use
- Commercial Reserve
- Recreation Open Space
- Institutional/Semi-Public
- Storm Water Pond
- Industrial
- C.A.R.P. Boundary
- Collector
- Arterial
- Interchange
- Neighbourhood Area & Density*
  - – Approved Area Structure Plan Density
  - – Future Area Structure Plan Designated Density
- S School
- C Place of Worship
- † Cemetary

* ppgra – means persons per gross acre

July 1984

1: 24,000

Edmonton Metropolitan Regional Planning Commission



Town of Spruce Grove General Municipal Plan

MAP 8
Statutory Plan Areas

EXISTING

Area Structure Plan (A.S.P.)

Central Area Redevelopment Plan

PROPOSED

Area Structure Plan

July 1984

1: 24,000

Edmonton Metropolitan Regional Planning Commission